



BC

LABORATORIES, INC.

Work Order Number: 1702918

**Laboratory Documentation Requirements
For Data Validation of
Volatile Analysis**

**Prepared By
BC Laboratories**

For AMEC Environmental & Infrastructure

5023146096

All pages have been paginated and results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



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Case Narrative

Analyses Requested: 8260
Submission Number: 17-02918

Instrument ID: MS-V5
Model: HP5973/GC6890

Column Type: Rxi R-624 Sil MS 30m x 0.25mm ID, 1.4 μ m film thickness.

Samples were received refrigerated to <6°C upon arrival at BC Laboratories, Inc. Samples were checked for preservation. Where applicable, sample preservation was adjusted in the laboratory.

Holding Time: All analyses and extractions took place within holding times.

Calibration: Initial calibration criteria were met. Frequency and accuracy criteria for initial calibration verification (ICV) were met. Frequency and accuracy criteria for continuing calibration verification (CCV) were met except the recovery for 1,2,3-Trichlorobenzene in 1702156-CCV1 and the recoveries for Bromomethane in 1702156-CCV1, 1702156-CCV3, 1702254-CCV3 and 1702340-CCV1 were outside QC limits. Ending CCV criteria of fifty percent were met except the recovery for Bromomethane in 1702156-CCV5 was outside QC limits. Any compounds that were flagged, but not required, were not noted here.

Blanks: Method blank was prepared and analyzed at the required frequency. No detection of analytes of interest took place at or above the PQL. Initial and continuing calibration blanks were analyzed at the required frequencies and on an as needed basis.

Laboratory Control Sample: Laboratory control sample analysis was performed at the required frequency. All parameters for the required compounds were met except the recovery for Tetrachloroethene was outside QC limits.

Matrix Spikes and Duplicates: Matrix spike analyses were performed at the required frequencies. All accuracy requirements for the requested compounds were met except the matrix spike and matrix spike duplicate recoveries for cis-1,2-Dichloroethene and Trichloroethene and the matrix spike duplicate recoveries for 1,2-Dichlorobenzene and Vinyl chloride were outside QC limits. The unspiked sample concentration for cis-1,2-Dichloroethene, Trichloroethene and Vinyl chloride exceeded the calibration range of the instrument. All precision requirements were met.



Chain of Custody and Cooler Receipt Form for 1702918 Page 1 of 5

Project Name: Alameda Basewide		Project Contact: Maria Mitchell		Bill To: Arctic Foster Wheeler 8210 Sky Park Court, Suite 200 San Diego, CA 92123		Disposal Instructions: LAB Shipment Method: FEDEX Waste Number: N/A																																																																																																																																																																																									
Project Number: 50231462086		Phone Number: (602) 800-3400 (602) ****																																																																																																																																																																																													
Project Manager: Kevin Omnes																																																																																																																																																																																															
Attn:		Lab Phone#																																																																																																																																																																																													
SHIP TO: BC Laboratories 4100 Asia Court Bakersfield, CA 93308 DATE: 2/1/2017 COC #: COC170201 PAGE: 1 OF 2																																																																																																																																																																																															
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BC

Laboratories, Inc.

Environmental Testing Laboratory Since 1949

Chain of Custody and Cooler Receipt Form for 1702918 Page 2 of 5

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Alameda Basewide	5023140096	Phone Number:	Marina Medical (803) 630-3400	9210 Sky Park Court, Suite 200 San Diego, CA 92123	America Foster Wheeler	LAB FEDEX	FEDEX																																																																																																																																																																																																																																																																						
Project Number:	Karen Ohnes	Project Phone#																																																																																																																																																																																																																																																																											
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4	M03-05_170201 - 16	02/01/17 13:35	WG	N	X	X	X	X	X	X	X																																																																																																																																																																																																																																																																		
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6	MW-02_170201 - 18	02/01/17 14:05	WG	N	X	X	X	X	X	X	X																																																																																																																																																																																																																																																																		
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Sampler's Signature:		Time: 14:55		Time: 14:55		Does COC match samples:		Y or N		Comments:																																																																																																																																																																																																																																																																			
Relinquished By/Affiliation:		Date: 2/1/17		Time: 14:55		Broken Container:		Y or N		X=Analyze H=Hold Analysis Request																																																																																																																																																																																																																																																																			
Received By:		Date: 2/1/17		Time: 14:55		COC seal intact:		Y or N		Report DL/LOD/LOQ with Navy NIRIS valid values																																																																																																																																																																																																																																																																			
Relinquished By/Affiliation:		Date: 2/1/17		Time: 14:55		Other problems:		Y or N		VOC short list is Benzene & Ethylbenzene only																																																																																																																																																																																																																																																																			
Received By:		Date: 2/1/17		Time: 14:55		WSDOT contacted:		Y or N		Major Contaminants are Na, K, Ca, Mg																																																																																																																																																																																																																																																																			
Relinquished By/Affiliation:		Date: 2/1/17		Time: 14:55		Date contacted:		Y or N		NUMBER OF COOLERS SENT:																																																																																																																																																																																																																																																																			
Received By (LAB):		Date: 2/1/17		Time: 2230		Cooler Temperature at receipt:		°C																																																																																																																																																																																																																																																																					
		Date: 2/1/17		Time: 2230		Cooler Temperature at time:		°C																																																																																																																																																																																																																																																																					

BC

Laboratories, Inc.

Environmental Testing Laboratory Since 1949

Chain of Custody and Cooler Receipt Form for 1702918 Page 3 of 5

BC LABORATORIES INC.		COOLER RECEIPT FORM					Page <u>1</u> Of <u>3</u>			
Submission #: <u>17-02918</u>										
SHIPPING INFORMATION FedEx <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____						SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S		
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____										
Custody Seals Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input type="checkbox"/> Comments: Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>										
All samples received? Yes <input type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input type="checkbox"/> No <input type="checkbox"/>										
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.97</u> Container: <u>VOA</u> Thermometer ID: <u>207</u> Temperature: (A) <u>3.0</u> °C / (C) <u>3.2</u> °C		Date/Time <u>2/1/22 40</u> Analyst Init <u>GSP</u>						
SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	<u>096</u>	<u>A8c</u>	<u>A8c</u>	<u>A8c</u>	<u>A8c</u>	<u>A8c</u>	<u>A8c</u>	<u>A8c</u>	<u>A8c</u>	
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 50E&0R/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
3oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:

Sample Numbering Completed By:

A = Actual / C = Corrected

JDC

Date/Time:

2-2-17 1041

Rev 21 05/23/2016

(SAWPDoc\WordPerfect\LAB_0005\FORMS\SAMRECver 28)

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Laboratories, Inc.

Environmental Testing Laboratory Since 1949

Chain of Custody and Cooler Receipt Form for 1702918 Page 4 of 5

BC LABORATORIES INC.		COOLER RECEIPT FORM						Page <u>2</u> Of <u>3</u>			
Submission #: <u>17-02918</u>											
SHIPPING INFORMATION								SHIPPING CONTAINER			
Fed Ex <input type="checkbox"/>	UPS <input type="checkbox"/>	Ontrac <input type="checkbox"/>	Hand Delivery <input type="checkbox"/>	Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/>		FREE LIQUID					
BC Lab Field Service <input checked="" type="checkbox"/>				Other <input type="checkbox"/> (Specify) _____		Other <input type="checkbox"/> (Specify) _____		YES <input type="checkbox"/> NO <input type="checkbox"/> W / S			
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____											
Custody Seals		Ice Chest <input type="checkbox"/>	Containers <input type="checkbox"/>	None <input type="checkbox"/> Comments: _____							
Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>		Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>		All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>							
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.97</u>		Container: <u>VOA</u>		Thermometer ID: <u>207</u>	Date/Time: <u>2/2/2018 10:22:40</u>		Analyst Init <u>GSP</u>		
Temperature: (A) <u>3.0</u> °C / (C) <u>3.2</u> °C											
SAMPLE CONTAINERS	SAMPLE NUMBERS										
	1	2	3	4	5	6	7	8	9	10	
QT PE UNPRES											
4oz / 8oz / 16oz PE UNPRES											
2oz Cr-6											
QT INORGANIC CHEMICAL METALS											
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz											
PT CYANIDE											
PT NITROGEN FORMS											
PT TOTAL SULFIDE											
2oz NITRATE / NITRITE											
PT TOTAL ORGANIC CARBON											
PT CHEMICAL OXYGEN DEMAND											
PTA PHENOLICS											
40ml VOA VIAL TRAVEL BLANK											
40ml VOA VIAL	<u>ABC</u>	<u>ABC</u>	<u>ABC</u>	<u>ABC</u>	<u>ABC</u>	<u>ABC</u>	<u>ABC</u>	<u>ABC</u>	<u>ABC</u>		
QT EPA 1664											
PT ODOR											
RADIOLOGICAL											
BACTERIOLOGICAL											
40 ml VOA VIAL - 504											
QT EPA 508/608/8080											
QT EPA 515.1/8150											
QT EPA S25											
QT EPA S25 TRAVEL BLANK											
40ml EPA 547											
40ml EPA 531.1											
8oz EPA 548											
QT EPA 549											
QT EPA 8015M											
QT EPA S270											
8oz / 16oz / 32oz AMBER											
8oz / 16oz / 32oz JAR											
SOIL SLEEVE											
PCB VIAL											
PLASTIC BAG											
TEDLAR BAG											
PERVIOUS IRON											
ENCORE											
SMART KIT											
SUMMA CANISTER											

Comments: _____

Sample Numbering Completed By: JNL

A = Actual / C = Corrected

Date/Time: 2-2-17

1041

Rev 21 05/23/2016

(S:\WP\Doc\MS\Perfect\LAB\DOCS\DRWS\SAREC\ver 20)

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Laboratories, Inc.

Environmental Testing Laboratory Since 1949

Chain of Custody and Cooler Receipt Form for 1702918 Page 5 of 5

BC LABORATORIES INC.		COOLER RECEIPT FORM							Page <u>3 Of 3</u>			
Submission # <u>17-02918</u>												
SHIPPING INFORMATION				SHIPPING CONTAINER				FREE LIQUID				
Fed Ex <input type="checkbox"/>	UPS <input type="checkbox"/>	Ontrac <input type="checkbox"/>	Hand Delivery <input type="checkbox"/>	Ice Chest <input checked="" type="checkbox"/>	None <input type="checkbox"/>	Box <input type="checkbox"/>	YES <input type="checkbox"/>	NO <input type="checkbox"/>	W / S			
BC Lab Field Service <input checked="" type="checkbox"/>				Other <input type="checkbox"/> (Specify) _____								
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____												
Custody Seals		Ice Chest <input type="checkbox"/>	Containers <input type="checkbox"/>	None <input type="checkbox"/> Comments: _____								
Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>		Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>										
All samples received? Yes <input type="checkbox"/> No <input type="checkbox"/>		All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>								
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.98</u>	Container: <u>Amber</u>	Thermometer ID: <u>207</u>	Date/Time: <u>2/1 2240</u>							
		Temperature: (A) <u>1.1</u> °C / (C) <u>1.2</u> °C	Analyst Init <u>6SP</u>									
SAMPLE CONTAINERS		SAMPLE NUMBERS										
<u>6-10</u> <u>5-9, U</u>		2	3	4	5	6	7	8	9	10		
QT PE UNPRES												
4oz / 8oz / 16oz PE UNPRES												
2oz Cr ⁶⁺												
QT INORGANIC CHEMICAL METALS												
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz												
PT CYANIDE												
PT NITROGEN FORMS												
PT TOTAL SULFIDE		<u>W, W, X</u>										
2oz NITRATE / NITRITE												
PT TOTAL ORGANIC CARBON												
PT CHEMICAL OXYGEN DEMAND												
PT PHENOLICS												
40ml VOA VIAL TRAVEL BLANK												
40ml VOA VIAL												
QT EPA 1664												
PT ODOR												
RADIOLOGICAL												
BACTERIOLOGICAL												
40 ml VOA VIAL- 504												
QT EPA 508/608/8080												
QT EPA 515.1/8150												
QT EPA 525												
QT EPA 525 TRAVEL BLANK												
40ml EPA 547												
40ml EPA 531.1												
8oz EPA 548												
QT EPA 549												
QT EPA 8015M												
QT EPA 8270												
3oz / 16oz / 32oz AMBER												
3oz / 16oz / 32oz JAR												
SOIL SLEEVE												
CB VIAL												
PLASTIC BAG												
EDLAR BAG												
TERROUS IRON												
INCORE												
MART KIT												
UMMA CANISTER												
Comments: _____												
Sample Numbering Completed By: _____		JPL		Date/Time: <u>2-2-17</u>		<u>1041</u>		Rev 21 05/23/2016				
= Actual / C = Corrected								(SWPPDWordPerfectLAB_DOCS\00MS\AMREC\ver 20)				



Laboratories, Inc.

Environmental Testing Laboratory Since 1949

AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

BC Laboratories
4100 Atlas Court
Bakersfield, CA 93308
Phone: 661-327-4911

SDG: 17-02918

Class: VOA

Method: EPA-8260B



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ANALYSES DATA PACKAGE COVER PAGE**EPA-8260B**

Laboratory: BC Laboratories

SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN

Project: Alameda

Client Sample Id:	Lab Sample Id:
D03-03_170201	<u>1702918-01</u>
<u>DUP15_170201</u>	<u>1702918-02</u>
<u>DUP16_170201</u>	<u>1702918-03</u>
<u>DUP16_170201</u>	<u>1702918-03RE1</u>
<u>DUP16_170201</u>	<u>1702918-03RE2</u>
<u>M03-06_170201</u>	<u>1702918-04</u>
<u>M03-10_170201</u>	<u>1702918-05</u>
<u>M03-18_170201</u>	<u>1702918-06</u>
<u>M03-19_170201</u>	<u>1702918-07</u>
<u>MW360-1_170201</u>	<u>1702918-08</u>
<u>MW360-1_170201</u>	<u>1702918-08RE1</u>
<u>MW360-1_170201</u>	<u>1702918-08RE2</u>
<u>MW630-4_170201</u>	<u>1702918-09</u>
<u>MW630-4_170201</u>	<u>1702918-09RE1</u>
<u>P4-1-MWIB2_170201</u>	<u>1702918-10</u>
<u>P4-1-MWIB2_170201</u>	<u>1702918-10RE1</u>
<u>P-4-1-MWS6_170201</u>	<u>1702918-11</u>
<u>S4-TT-MW01_170201</u>	<u>1702918-12</u>
<u>372-MW1_170201</u>	<u>1702918-13</u>
<u>EB15_170201</u>	<u>1702918-14</u>
<u>EB16_170201</u>	<u>1702918-15</u>
<u>M03-05_170201</u>	<u>1702918-16</u>
<u>M03-17_170201</u>	<u>1702918-17</u>
<u>MW-02_170201</u>	<u>1702918-18</u>
<u>MW-02_170201</u>	<u>1702918-18RE1</u>

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature:

Name: Sara Guron

Date:

03-06-2017

Title: QA/QC Manager



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

METHOD DETECTION AND REPORTING LIMITS

EPA-8260B

Laboratory: BC Laboratories

SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN

Project: Alameda

Matrix: Water

Instrument: MS-V5

Analyte	DL	LOD	LOQ	Units
Benzene	0.083	0.16	0.50	ug/L
Bromobenzene	0.13	0.16	0.50	ug/L
Bromochloromethane	0.24	0.30	1.0	ug/L
Bromodichloromethane	0.14	0.30	0.50	ug/L
Bromoform	0.27	0.30	0.60	ug/L
Bromomethane	0.25	0.25	0.60	ug/L
n-Butylbenzene	0.11	0.16	0.50	ug/L
sec-Butylbenzene	0.15	0.16	0.50	ug/L
tert-Butylbenzene	0.13	0.16	0.50	ug/L
Carbon tetrachloride	0.18	0.20	0.50	ug/L
Chlorobenzene	0.093	0.16	0.50	ug/L
Chloroethane	0.14	0.16	0.50	ug/L
Chloroform	0.12	0.16	0.50	ug/L
Chloromethane	0.14	0.16	0.50	ug/L
2-Chlorotoluene	0.20	0.20	0.50	ug/L
4-Chlorotoluene	0.15	0.16	0.50	ug/L
Dibromochloromethane	0.13	0.16	0.50	ug/L
1,2-Dibromo-3-chloropropane	0.44	0.50	1.0	ug/L
1,2-Dibromoethane	0.16	0.16	0.50	ug/L
Dibromomethane	0.24	0.30	1.0	ug/L
1,2-Dichlorobenzene	0.072	0.16	0.50	ug/L
1,3-Dichlorobenzene	0.15	0.16	0.50	ug/L
1,4-Dichlorobenzene	0.062	0.16	0.50	ug/L
Dichlorodifluoromethane	0.099	0.16	0.50	ug/L
1,1-Dichloroethane	0.11	0.16	0.50	ug/L
1,2-Dichloroethane	0.17	0.20	0.50	ug/L
1,1-Dichloroethene	0.18	0.20	0.50	ug/L
cis-1,2-Dichloroethene	0.085	0.16	0.50	ug/L
trans-1,2-Dichloroethene	0.15	0.16	0.50	ug/L
1,2-Dichloropropane	0.13	0.16	0.50	ug/L



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

METHOD DETECTION AND REPORTING LIMITS**EPA-8260B****Laboratory:** BC Laboratories**SDG:** 17-02918**Client:** AMEC Environmental & Infrastructure \$AMCN**Project:** Alameda**Matrix:** Water**Instrument:** MS-V5

Analyte	DL	LOD	LOQ	Units
1,3-Dichloropropane	0.086	0.16	0.50	ug/L
2,2-Dichloropropane	0.13	0.16	0.50	ug/L
1,1-Dichloropropene	0.085	0.16	0.50	ug/L
cis-1,3-Dichloropropene	0.14	0.16	0.50	ug/L
trans-1,3-Dichloropropene	0.079	0.16	0.50	ug/L
Ethylbenzene	0.098	0.16	0.50	ug/L
Hexachlorobutadiene	0.17	0.20	0.50	ug/L
Isopropylbenzene	0.14	0.16	0.50	ug/L
p-Isopropyltoluene	0.12	0.16	0.50	ug/L
Methylene chloride	0.48	0.50	1.0	ug/L
Methyl t-butyl ether	0.11	0.16	0.50	ug/L
Naphthalene	0.36	0.40	0.50	ug/L
n-Propylbenzene	0.11	0.16	0.50	ug/L
Styrene	0.068	0.16	0.50	ug/L
1,1,1,2-Tetrachloroethane	0.18	0.20	0.50	ug/L
1,1,2,2-Tetrachloroethane	0.17	0.20	0.50	ug/L
Tetrachloroethene	0.13	0.16	0.50	ug/L
Toluene	0.093	0.16	0.50	ug/L
1,2,3-Trichlorobenzene	0.16	0.16	0.50	ug/L
1,2,4-Trichlorobenzene	0.19	0.20	0.50	ug/L
1,1,1-Trichloroethane	0.11	0.16	0.50	ug/L
1,1,2-Trichloroethane	0.16	0.16	0.50	ug/L
Trichloroethene	0.085	0.16	0.50	ug/L
Trichlorofluoromethane	0.13	0.16	0.50	ug/L
1,2,3-Trichloropropane	0.24	0.33	0.50	ug/L
1,1,2-Trichloro-1,2,2-trifluoroethane	0.15	0.16	0.50	ug/L
1,2,4-Trimethylbenzene	0.12	0.16	0.50	ug/L
1,3,5-Trimethylbenzene	0.12	0.16	0.50	ug/L
Vinyl chloride	0.12	0.16	0.50	ug/L
Total Xylenes	0.36	0.46	1.0	ug/L



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

METHOD DETECTION AND REPORTING LIMITS

EPA-8260B

Laboratory: BC Laboratories

SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN

Project: Alameda

Matrix: Water

Instrument: MS-V5

Analyte	DL	LOD	LOQ	Units
Acetone	4.6	5.0	10	ug/L
Acetonitrile	5.5	6.0	10	ug/L
Allyl chloride	0.80	1.0	5.0	ug/L
t-Amyl Methyl ether	0.25	0.30	0.50	ug/L
Benzyl chloride	0.60	0.60	1.0	ug/L
t-Butyl alcohol	9.4	10	12	ug/L
Carbon disulfide	0.38	0.40	1.0	ug/L
Chloroprene	0.37	1.0	5.0	ug/L
Diisopropyl ether	0.23	0.30	0.50	ug/L
Ethyl t-butyl ether	0.18	0.20	0.50	ug/L
2-Hexanone	3.4	4.0	10	ug/L
Methyl ethyl ketone	2.5	3.0	10	ug/L
Methyl isobutyl ketone	2.1	3.0	10	ug/L
Vinyl acetate	1.8	6.0	20	ug/L
p- & m-Xylenes	0.28	0.30	0.50	ug/L
o-Xylene	0.082	0.16	0.50	ug/L



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

D03-03_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-01</u>
Sampled:	<u>02/01/17 11:30</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
		Instrument:	<u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
71-43-2	Benzene	1	0.16	0.083	0.16	0.50	U
108-86-1	Bromobenzene	1	0.16	0.13	0.16	0.50	U
74-97-5	Bromochloromethane	1	0.30	0.24	0.30	1.0	U
75-27-4	Bromodichloromethane	1	0.30	0.14	0.30	0.50	U
75-25-2	Bromoform	1	0.30	0.27	0.30	0.60	U
74-83-9	Bromomethane	1	0.25	0.25	0.25	0.60	U
104-51-8	n-Butylbenzene	1	0.16	0.11	0.16	0.50	U
135-98-8	sec-Butylbenzene	1	0.16	0.15	0.16	0.50	U
98-06-6	tert-Butylbenzene	1	0.16	0.13	0.16	0.50	U
56-23-5	Carbon tetrachloride	1	0.20	0.18	0.20	0.50	U
108-90-7	Chlorobenzene	1	0.16	0.093	0.16	0.50	U
75-00-3	Chloroethane	1	0.16	0.14	0.16	0.50	U
67-66-3	Chloroform	1	0.16	0.12	0.16	0.50	U
74-87-3	Chloromethane	1	0.16	0.14	0.16	0.50	U
95-49-8	2-Chlorotoluene	1	0.20	0.20	0.20	0.50	U
106-43-4	4-Chlorotoluene	1	0.16	0.15	0.16	0.50	U
124-48-1	Dibromochloromethane	1	0.16	0.13	0.16	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.50	0.44	0.50	1.0	U
106-93-4	1,2-Dibromoethane	1	0.16	0.16	0.16	0.50	U
74-95-3	Dibromomethane	1	0.30	0.24	0.30	1.0	U
95-50-1	1,2-Dichlorobenzene	1	0.16	0.072	0.16	0.50	U
541-73-1	1,3-Dichlorobenzene	1	0.16	0.15	0.16	0.50	U
106-46-7	1,4-Dichlorobenzene	1	0.16	0.062	0.16	0.50	U
75-71-8	Dichlorodifluoromethane	1	0.16	0.099	0.16	0.50	U
75-34-3	1,1-Dichloroethane	1	0.16	0.11	0.16	0.50	U
107-06-2	1,2-Dichloroethane	1	0.20	0.17	0.20	0.50	U
75-35-4	1,1-Dichloroethene	1	0.20	0.18	0.20	0.50	U
156-59-2	cis-1,2-Dichloroethene	1	0.16	0.085	0.16	0.50	U
156-60-5	trans-1,2-Dichloroethene	1	0.16	0.15	0.16	0.50	U
78-87-5	1,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U
142-28-9	1,3-Dichloropropane	1	0.16	0.086	0.16	0.50	U
594-20-7	2,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET

EPA-8260B

D03-03_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-01</u>
Sampled:	<u>02/01/17 11:30</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
563-58-6	1,1-Dichloropropene	1	0.16	0.085	0.16	0.50	U
100-41-4	Ethylbenzene	1	0.16	0.098	0.16	0.50	U
87-68-3	Hexachlorobutadiene	1	0.20	0.17	0.20	0.50	U
98-82-8	Isopropylbenzene	1	0.16	0.14	0.16	0.50	U
99-87-6	p-Isopropyltoluene	1	0.16	0.12	0.16	0.50	U
75-09-2	Methylene chloride	1	0.50	0.48	0.50	1.0	U
1634-04-4	Methyl t-butyl ether	1	0.16	0.11	0.16	0.50	U
91-20-3	Naphthalene	1	0.40	0.36	0.40	0.50	U
103-65-1	n-Propylbenzene	1	0.16	0.11	0.16	0.50	U
100-42-5	Styrene	1	0.16	0.068	0.16	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	1	0.20	0.18	0.20	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.20	0.17	0.20	0.50	U
127-18-4	Tetrachloroethene	1	0.16	0.13	0.16	0.50	U
108-88-3	Toluene	1	0.16	0.093	0.16	0.50	U
87-61-6	1,2,3-Trichlorobenzene	1	0.16	0.16	0.16	0.50	U
120-82-1	1,2,4-Trichlorobenzene	1	0.20	0.19	0.20	0.50	U
71-55-6	1,1,1-Trichloroethane	1	0.16	0.11	0.16	0.50	U
79-00-5	1,1,2-Trichloroethane	1	0.16	0.16	0.16	0.50	U
79-01-6	Trichloroethene	1	0.16	0.085	0.16	0.50	U
75-69-4	Trichlorofluoromethane	1	0.16	0.13	0.16	0.50	U
96-18-4	1,2,3-Trichloropropane	1	0.33	0.24	0.33	0.50	U
95-63-6	1,2,4-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
108-67-8	1,3,5-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
75-01-4	Vinyl chloride	1	0.16	0.12	0.16	0.50	U
67-64-1	Acetone	1	5.0	4.6	5.0	10	U
994-05-8	t-Amyl Methyl ether	1	0.30	0.25	0.30	0.50	U
75-65-0	t-Butyl alcohol	1	10	9.4	10	15	U
75-15-0	Carbon disulfide	1	0.40	0.38	0.40	1.0	U
108-20-3	Diisopropyl ether	1	0.30	0.23	0.30	0.50	U
637-92-3	Ethyl t-butyl ether	1	0.20	0.18	0.20	0.50	U
78-93-3	Methyl ethyl ketone	1	3.0	2.5	3.0	10	U
179601-23-1	p- & m-Xylenes	1	0.30	0.28	0.30	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

D03-03_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-01</u>
Sampled:	<u>02/01/17 11:30</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
95-47-6	o-Xylene	1	0.16	0.082	0.16	0.50	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	10.510	105	81 - 118	
Toluene-d8 (Surrogate)	10.000	9.5300	95.3	89 - 112	
4-Bromofluorobenzene (Surrogate)	10.000	9.5700	95.7	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	207264	6.58	176929	6.58	
Chlorobenzene-d5 (IS)	70383	9.62	60035	9.62	
1,4-Difluorobenzene (IS)	287720	7.39	251715	7.39	

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
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Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

DUP15_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-02</u>
Sampled:	<u>02/01/17 10:00</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
71-43-2	Benzene	1	0.16	0.083	0.16	0.50	U
108-86-1	Bromobenzene	1	0.16	0.13	0.16	0.50	U
74-97-5	Bromochloromethane	1	0.30	0.24	0.30	1.0	U
75-27-4	Bromodichloromethane	1	0.30	0.14	0.30	0.50	U
75-25-2	Bromoform	1	0.30	0.27	0.30	0.60	U
74-83-9	Bromomethane	1	0.25	0.25	0.25	0.60	U
104-51-8	n-Butylbenzene	1	0.16	0.11	0.16	0.50	U
135-98-8	sec-Butylbenzene	1	0.16	0.15	0.16	0.50	U
98-06-6	tert-Butylbenzene	1	0.16	0.13	0.16	0.50	U
56-23-5	Carbon tetrachloride	1	0.20	0.18	0.20	0.50	U
108-90-7	Chlorobenzene	1	0.16	0.093	0.16	0.50	U
75-00-3	Chloroethane	1	0.16	0.14	0.16	0.50	U
67-66-3	Chloroform	1	0.16	0.12	0.16	0.50	U
74-87-3	Chloromethane	1	0.16	0.14	0.16	0.50	U
95-49-8	2-Chlorotoluene	1	0.20	0.20	0.20	0.50	U
106-43-4	4-Chlorotoluene	1	0.16	0.15	0.16	0.50	U
124-48-1	Dibromochloromethane	1	0.16	0.13	0.16	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.50	0.44	0.50	1.0	U
106-93-4	1,2-Dibromoethane	1	0.16	0.16	0.16	0.50	U
74-95-3	Dibromomethane	1	0.30	0.24	0.30	1.0	U
95-50-1	1,2-Dichlorobenzene	1	0.16	0.072	0.16	0.50	U
541-73-1	1,3-Dichlorobenzene	1	0.16	0.15	0.16	0.50	U
106-46-7	1,4-Dichlorobenzene	1	0.16	0.062	0.16	0.50	U
75-71-8	Dichlorodifluoromethane	1	0.16	0.099	0.16	0.50	U
75-34-3	1,1-Dichloroethane	1	0.16	0.11	0.16	0.50	U
107-06-2	1,2-Dichloroethane	1	0.20	0.17	0.20	0.50	U
75-35-4	1,1-Dichloroethene	1	0.20	0.18	0.20	0.50	U
156-59-2	cis-1,2-Dichloroethene	1	0.16	0.085	0.16	0.50	U
156-60-5	trans-1,2-Dichloroethene	1	0.16	0.15	0.16	0.50	U
78-87-5	1,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U
142-28-9	1,3-Dichloropropane	1	0.16	0.086	0.16	0.50	U
594-20-7	2,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET

EPA-8260B

DUP15_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-02</u>
Sampled:	<u>02/01/17 10:00</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
563-58-6	1,1-Dichloropropene	1	0.16	0.085	0.16	0.50	U
100-41-4	Ethylbenzene	1	0.16	0.098	0.16	0.50	U
87-68-3	Hexachlorobutadiene	1	0.20	0.17	0.20	0.50	U
98-82-8	Isopropylbenzene	1	0.16	0.14	0.16	0.50	U
99-87-6	p-Isopropyltoluene	1	0.16	0.12	0.16	0.50	U
75-09-2	Methylene chloride	1	0.50	0.48	0.50	1.0	U
1634-04-4	Methyl t-butyl ether	1	0.16	0.11	0.16	0.50	U
91-20-3	Naphthalene	1	0.40	0.36	0.40	0.50	U
103-65-1	n-Propylbenzene	1	0.16	0.11	0.16	0.50	U
100-42-5	Styrene	1	0.16	0.068	0.16	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	1	0.20	0.18	0.20	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.20	0.17	0.20	0.50	U
127-18-4	Tetrachloroethene	1	0.16	0.13	0.16	0.50	U
108-88-3	Toluene	1	0.16	0.093	0.16	0.50	U
87-61-6	1,2,3-Trichlorobenzene	1	0.16	0.16	0.16	0.50	U
120-82-1	1,2,4-Trichlorobenzene	1	0.20	0.19	0.20	0.50	U
71-55-6	1,1,1-Trichloroethane	1	0.16	0.11	0.16	0.50	U
79-00-5	1,1,2-Trichloroethane	1	0.16	0.16	0.16	0.50	U
79-01-6	Trichloroethene	1	0.16	0.085	0.16	0.50	U
75-69-4	Trichlorofluoromethane	1	0.16	0.13	0.16	0.50	U
96-18-4	1,2,3-Trichloropropane	1	0.33	0.24	0.33	0.50	U
95-63-6	1,2,4-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
108-67-8	1,3,5-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
75-01-4	Vinyl chloride	1	0.16	0.12	0.16	0.50	U
67-64-1	Acetone	1	5.0	4.6	5.0	10	U
994-05-8	t-Amyl Methyl ether	1	0.30	0.25	0.30	0.50	U
75-65-0	t-Butyl alcohol	1	10	9.4	10	15	U
75-15-0	Carbon disulfide	1	0.40	0.38	0.40	1.0	U
108-20-3	Diisopropyl ether	1	0.30	0.23	0.30	0.50	U
637-92-3	Ethyl t-butyl ether	1	0.20	0.18	0.20	0.50	U
78-93-3	Methyl ethyl ketone	1	3.0	2.5	3.0	10	U
179601-23-1	p- & m-Xylenes	1	0.30	0.28	0.30	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

DUP15_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-02</u>
Sampled:	<u>02/01/17 10:00</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
95-47-6	o-Xylene	1	0.16	0.082	0.16	0.50	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	10.110	101	81 - 118	
Toluene-d8 (Surrogate)	10.000	9.6100	96.1	89 - 112	
4-Bromofluorobenzene (Surrogate)	10.000	9.4600	94.6	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	197172	6.58	176929	6.58	
Chlorobenzene-d5 (IS)	68622	9.62	60035	9.62	
1,4-Difluorobenzene (IS)	270687	7.39	251715	7.39	

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

DUP16_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-03</u>
Sampled:	<u>02/01/17 11:05</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
71-43-2	Benzene	1	0.24	0.083	0.16	0.50	J
108-86-1	Bromobenzene	1	0.16	0.13	0.16	0.50	U
74-97-5	Bromochloromethane	1	0.30	0.24	0.30	1.0	U
75-27-4	Bromodichloromethane	1	0.30	0.14	0.30	0.50	U
75-25-2	Bromoform	1	0.30	0.27	0.30	0.60	U
74-83-9	Bromomethane	1	0.25	0.25	0.25	0.60	U
104-51-8	n-Butylbenzene	1	0.16	0.11	0.16	0.50	U
135-98-8	sec-Butylbenzene	1	0.16	0.15	0.16	0.50	J
98-06-6	tert-Butylbenzene	1	0.16	0.13	0.16	0.50	U
56-23-5	Carbon tetrachloride	1	0.20	0.18	0.20	0.50	U
108-90-7	Chlorobenzene	1	2.6	0.093	0.16	0.50	
75-00-3	Chloroethane	1	0.16	0.14	0.16	0.50	U
67-66-3	Chloroform	1	0.16	0.12	0.16	0.50	U
74-87-3	Chloromethane	1	0.16	0.14	0.16	0.50	U
95-49-8	2-Chlorotoluene	1	0.20	0.20	0.20	0.50	U
106-43-4	4-Chlorotoluene	1	0.16	0.15	0.16	0.50	U
124-48-1	Dibromochloromethane	1	0.16	0.13	0.16	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.50	0.44	0.50	1.0	U
106-93-4	1,2-Dibromoethane	1	0.16	0.16	0.16	0.50	U
74-95-3	Dibromomethane	1	0.30	0.24	0.30	1.0	U
541-73-1	1,3-Dichlorobenzene	1	4.5	0.15	0.16	0.50	
106-46-7	1,4-Dichlorobenzene	1	36	0.062	0.16	0.50	
75-71-8	Dichlorodifluoromethane	1	0.16	0.099	0.16	0.50	U
75-34-3	1,1-Dichloroethane	1	8.6	0.11	0.16	0.50	
107-06-2	1,2-Dichloroethane	1	0.20	0.17	0.20	0.50	U
75-35-4	1,1-Dichloroethene	1	15	0.18	0.20	0.50	
156-60-5	trans-1,2-Dichloroethene	1	99	0.15	0.16	0.50	
78-87-5	1,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U
142-28-9	1,3-Dichloropropane	1	0.16	0.086	0.16	0.50	U
594-20-7	2,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U
563-58-6	1,1-Dichloropropene	1	0.16	0.085	0.16	0.50	U
100-41-4	Ethylbenzene	1	0.16	0.098	0.16	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

DUP16_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-03</u>
Sampled:	<u>02/01/17 11:05</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
87-68-3	Hexachlorobutadiene	1	0.20	0.17	0.20	0.50	U
98-82-8	Isopropylbenzene	1	0.16	0.14	0.16	0.50	U
99-87-6	p-Isopropyltoluene	1	0.16	0.12	0.16	0.50	U
75-09-2	Methylene chloride	1	0.50	0.48	0.50	1.0	U
1634-04-4	Methyl t-butyl ether	1	0.16	0.11	0.16	0.50	U
91-20-3	Naphthalene	1	0.40	0.36	0.40	0.50	U
103-65-1	n-Propylbenzene	1	0.16	0.11	0.16	0.50	U
100-42-5	Styrene	1	0.16	0.068	0.16	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	1	0.20	0.18	0.20	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.20	0.17	0.20	0.50	U
127-18-4	Tetrachloroethene	1	1.5	0.13	0.16	0.50	
108-88-3	Toluene	1	0.16	0.093	0.16	0.50	U
87-61-6	1,2,3-Trichlorobenzene	1	0.23	0.16	0.16	0.50	J
120-82-1	1,2,4-Trichlorobenzene	1	0.65	0.19	0.20	0.50	
71-55-6	1,1,1-Trichloroethane	1	0.16	0.11	0.16	0.50	U
79-00-5	1,1,2-Trichloroethane	1	0.16	0.16	0.16	0.50	U
75-69-4	Trichlorofluoromethane	1	0.16	0.13	0.16	0.50	U
96-18-4	1,2,3-Trichloropropane	1	0.33	0.24	0.33	0.50	U
95-63-6	1,2,4-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
108-67-8	1,3,5-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
75-01-4	Vinyl chloride	1	2.0	0.12	0.16	0.50	
67-64-1	Acetone	1	5.0	4.6	5.0	10	U
994-05-8	t-Amyl Methyl ether	1	0.30	0.25	0.30	0.50	U
75-65-0	t-Butyl alcohol	1	10	9.4	10	15	U
75-15-0	Carbon disulfide	1	0.40	0.38	0.40	1.0	U
108-20-3	Diisopropyl ether	1	0.70	0.23	0.30	0.50	
637-92-3	Ethyl t-butyl ether	1	0.20	0.18	0.20	0.50	U
78-93-3	Methyl ethyl ketone	1	3.0	2.5	3.0	10	U
179601-23-1	p- & m-Xylenes	1	0.30	0.28	0.30	0.50	U
95-47-6	o-Xylene	1	0.16	0.082	0.16	0.50	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

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Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET
EPA-8260B

DUP16_170201

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Matrix: Water Laboratory ID: 1702918-03 File ID: 08FEB37.D
Sampled: 02/01/17 11:05 Prepared: 02/08/17 07:15 Analyzed: 02/08/17 19:31
Solids: Preparation: EPA 5030 Water MS Initial/Final: 25 ml / 25 ml
Batch: B[B0714 Sequence: 1702156 Calibration: 1702011 Instrument: MS-V5

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	10.770	108	81 - 118	
Toluene-d8 (Surrogate)	10.000	9.9500	99.5	89 - 112	
4-Bromofluorobenzene (Surrogate)	10.000	9.7200	97.2	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	195708	6.58	176929	6.58	
Chlorobenzene-d5 (IS)	66814	9.62	60035	9.62	
1,4-Difluorobenzene (IS)	257899	7.39	251715	7.39	

* Values outside of QC limits



AMEC Environmental & Infrastructure
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Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET
EPA-8260B

DUP16_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-03RE1</u>
Sampled:	<u>02/01/17 11:05</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702254</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
95-50-1	1,2-Dichlorobenzene	10	130	0.72	1.6	5.0	D
156-59-2	cis-1,2-Dichloroethene	10	330	0.85	1.6	5.0	D

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	10.450	104	81 - 118	
Toluene-d8 (Surrogate)	10.000	9.8600	98.6	89 - 112	
4-Bromofluorobenzene (Surrogate)	10.000	10.070	101	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	200767	6.58	202038	6.58	
Chlorobenzene-d5 (IS)	65828	9.62	73786	9.62	
1,4-Difluorobenzene (IS)	269326	7.39	288051	7.39	

* Values outside of QC limits



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Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

DUP16_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-03RE2</u>
Sampled:	<u>02/01/17 11:05</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702340</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
79-01-6	Trichloroethene	50	1700	4.2	8.0	25	D

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	10.890	109	81 - 118	
Toluene-d8 (Surrogate)	10.000	9.7600	97.6	89 - 112	
4-Bromofluorobenzene (Surrogate)	10.000	9.6800	96.8	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	190314	6.58	187920	6.58	
Chlorobenzene-d5 (IS)	63683	9.62	66125	9.62	
1,4-Difluorobenzene (IS)	262338	7.39	261715	7.39	

* Values outside of QC limits



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Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

M03-06_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-04</u>
Sampled:	<u>02/01/17 08:30</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702254</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
71-43-2	Benzene	1	0.16	0.083	0.16	0.50	U
108-86-1	Bromobenzene	1	0.16	0.13	0.16	0.50	U
74-97-5	Bromochloromethane	1	0.30	0.24	0.30	1.0	U
75-27-4	Bromodichloromethane	1	0.30	0.14	0.30	0.50	U
75-25-2	Bromoform	1	0.30	0.27	0.30	0.60	U
74-83-9	Bromomethane	1	0.25	0.25	0.25	0.60	U
104-51-8	n-Butylbenzene	1	0.16	0.11	0.16	0.50	U
135-98-8	sec-Butylbenzene	1	0.16	0.15	0.16	0.50	U
98-06-6	tert-Butylbenzene	1	0.16	0.13	0.16	0.50	U
56-23-5	Carbon tetrachloride	1	0.20	0.18	0.20	0.50	U
108-90-7	Chlorobenzene	1	0.16	0.093	0.16	0.50	U
75-00-3	Chloroethane	1	0.16	0.14	0.16	0.50	U
67-66-3	Chloroform	1	0.16	0.12	0.16	0.50	U
74-87-3	Chloromethane	1	0.16	0.14	0.16	0.50	U
95-49-8	2-Chlorotoluene	1	0.20	0.20	0.20	0.50	U
106-43-4	4-Chlorotoluene	1	0.16	0.15	0.16	0.50	U
124-48-1	Dibromochloromethane	1	0.16	0.13	0.16	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.50	0.44	0.50	1.0	U
106-93-4	1,2-Dibromoethane	1	0.16	0.16	0.16	0.50	U
74-95-3	Dibromomethane	1	0.30	0.24	0.30	1.0	U
95-50-1	1,2-Dichlorobenzene	1	0.16	0.072	0.16	0.50	U
541-73-1	1,3-Dichlorobenzene	1	0.16	0.15	0.16	0.50	U
106-46-7	1,4-Dichlorobenzene	1	0.16	0.062	0.16	0.50	U
75-71-8	Dichlorodifluoromethane	1	0.16	0.099	0.16	0.50	U
75-34-3	1,1-Dichloroethane	1	0.16	0.11	0.16	0.50	U
107-06-2	1,2-Dichloroethane	1	0.20	0.17	0.20	0.50	U
75-35-4	1,1-Dichloroethene	1	0.49	0.18	0.20	0.50	J
156-59-2	cis-1,2-Dichloroethene	1	0.16	0.085	0.16	0.50	U
156-60-5	trans-1,2-Dichloroethene	1	0.45	0.15	0.16	0.50	J
78-87-5	1,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U
142-28-9	1,3-Dichloropropane	1	0.16	0.086	0.16	0.50	U
594-20-7	2,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U



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Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET

EPA-8260B

M03-06_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-04</u>
Sampled:	<u>02/01/17 08:30</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702254</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
563-58-6	1,1-Dichloropropene	1	0.16	0.085	0.16	0.50	U
100-41-4	Ethylbenzene	1	0.16	0.098	0.16	0.50	U
87-68-3	Hexachlorobutadiene	1	0.20	0.17	0.20	0.50	U
98-82-8	Isopropylbenzene	1	0.16	0.14	0.16	0.50	U
99-87-6	p-Isopropyltoluene	1	0.16	0.12	0.16	0.50	U
75-09-2	Methylene chloride	1	0.50	0.48	0.50	1.0	U
1634-04-4	Methyl t-butyl ether	1	0.16	0.11	0.16	0.50	U
91-20-3	Naphthalene	1	0.40	0.36	0.40	0.50	U
103-65-1	n-Propylbenzene	1	0.16	0.11	0.16	0.50	U
100-42-5	Styrene	1	0.16	0.068	0.16	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	1	0.20	0.18	0.20	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.20	0.17	0.20	0.50	U
127-18-4	Tetrachloroethene	1	0.16	0.13	0.16	0.50	U
108-88-3	Toluene	1	0.16	0.093	0.16	0.50	U
87-61-6	1,2,3-Trichlorobenzene	1	0.16	0.16	0.16	0.50	U
120-82-1	1,2,4-Trichlorobenzene	1	0.20	0.19	0.20	0.50	U
71-55-6	1,1,1-Trichloroethane	1	0.16	0.11	0.16	0.50	U
79-00-5	1,1,2-Trichloroethane	1	0.16	0.16	0.16	0.50	U
79-01-6	Trichloroethene	1	0.16	0.085	0.16	0.50	U
75-69-4	Trichlorofluoromethane	1	0.16	0.13	0.16	0.50	U
96-18-4	1,2,3-Trichloropropane	1	0.33	0.24	0.33	0.50	U
95-63-6	1,2,4-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
108-67-8	1,3,5-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
75-01-4	Vinyl chloride	1	0.75	0.12	0.16	0.50	
67-64-1	Acetone	1	5.0	4.6	5.0	10	U
994-05-8	t-Amyl Methyl ether	1	0.30	0.25	0.30	0.50	U
75-65-0	t-Butyl alcohol	1	10	9.4	10	15	U
75-15-0	Carbon disulfide	1	0.40	0.38	0.40	1.0	U
108-20-3	Diisopropyl ether	1	0.30	0.23	0.30	0.50	U
637-92-3	Ethyl t-butyl ether	1	0.20	0.18	0.20	0.50	U
78-93-3	Methyl ethyl ketone	1	3.0	2.5	3.0	10	U
179601-23-1	p- & m-Xylenes	1	0.30	0.28	0.30	0.50	U



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Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

M03-06_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-04</u>
Sampled:	<u>02/01/17 08:30</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702254</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
95-47-6	o-Xylene	1	0.16	0.082	0.16	0.50	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	10.180	102	81 - 118	
Toluene-d8 (Surrogate)	10.000	9.8600	98.6	89 - 112	
4-Bromofluorobenzene (Surrogate)	10.000	9.5900	95.9	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	206816	6.58	202038	6.58	
Chlorobenzene-d5 (IS)	66074	9.62	73786	9.62	
1,4-Difluorobenzene (IS)	280500	7.39	288051	7.39	

* Values outside of QC limits



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Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

M03-10_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-05</u>
Sampled:	<u>02/01/17 10:55</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
71-43-2	Benzene	1	0.16	0.083	0.16	0.50	U
108-86-1	Bromobenzene	1	0.16	0.13	0.16	0.50	U
74-97-5	Bromochloromethane	1	0.30	0.24	0.30	1.0	U
75-27-4	Bromodichloromethane	1	0.30	0.14	0.30	0.50	U
75-25-2	Bromoform	1	0.30	0.27	0.30	0.60	U
74-83-9	Bromomethane	1	0.25	0.25	0.25	0.60	U
104-51-8	n-Butylbenzene	1	0.16	0.11	0.16	0.50	U
135-98-8	sec-Butylbenzene	1	0.16	0.15	0.16	0.50	U
98-06-6	tert-Butylbenzene	1	0.16	0.13	0.16	0.50	U
56-23-5	Carbon tetrachloride	1	0.20	0.18	0.20	0.50	U
108-90-7	Chlorobenzene	1	0.16	0.093	0.16	0.50	U
75-00-3	Chloroethane	1	0.16	0.14	0.16	0.50	U
67-66-3	Chloroform	1	0.16	0.12	0.16	0.50	U
74-87-3	Chloromethane	1	0.16	0.14	0.16	0.50	U
95-49-8	2-Chlorotoluene	1	0.20	0.20	0.20	0.50	U
106-43-4	4-Chlorotoluene	1	0.16	0.15	0.16	0.50	U
124-48-1	Dibromochloromethane	1	0.16	0.13	0.16	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.50	0.44	0.50	1.0	U
106-93-4	1,2-Dibromoethane	1	0.16	0.16	0.16	0.50	U
74-95-3	Dibromomethane	1	0.30	0.24	0.30	1.0	U
95-50-1	1,2-Dichlorobenzene	1	0.20	0.072	0.16	0.50	J
541-73-1	1,3-Dichlorobenzene	1	0.16	0.15	0.16	0.50	U
106-46-7	1,4-Dichlorobenzene	1	0.16	0.062	0.16	0.50	U
75-71-8	Dichlorodifluoromethane	1	0.16	0.099	0.16	0.50	U
75-34-3	1,1-Dichloroethane	1	0.16	0.11	0.16	0.50	U
107-06-2	1,2-Dichloroethane	1	0.20	0.17	0.20	0.50	U
75-35-4	1,1-Dichloroethene	1	21	0.18	0.20	0.50	
156-59-2	cis-1,2-Dichloroethene	1	1.4	0.085	0.16	0.50	
156-60-5	trans-1,2-Dichloroethene	1	0.16	0.15	0.16	0.50	U
78-87-5	1,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U
142-28-9	1,3-Dichloropropane	1	0.16	0.086	0.16	0.50	U
594-20-7	2,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U



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ORGANIC ANALYSIS DATA SHEET

EPA-8260B

M03-10_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-05</u>
Sampled:	<u>02/01/17 10:55</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
563-58-6	1,1-Dichloropropene	1	0.16	0.085	0.16	0.50	U
100-41-4	Ethylbenzene	1	0.16	0.098	0.16	0.50	U
87-68-3	Hexachlorobutadiene	1	0.20	0.17	0.20	0.50	U
98-82-8	Isopropylbenzene	1	0.16	0.14	0.16	0.50	U
99-87-6	p-Isopropyltoluene	1	0.16	0.12	0.16	0.50	U
75-09-2	Methylene chloride	1	0.50	0.48	0.50	1.0	U
1634-04-4	Methyl t-butyl ether	1	0.59	0.11	0.16	0.50	
91-20-3	Naphthalene	1	0.40	0.36	0.40	0.50	U
103-65-1	n-Propylbenzene	1	0.16	0.11	0.16	0.50	U
100-42-5	Styrene	1	0.16	0.068	0.16	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	1	0.20	0.18	0.20	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.20	0.17	0.20	0.50	U
127-18-4	Tetrachloroethene	1	0.16	0.13	0.16	0.50	U
108-88-3	Toluene	1	0.16	0.093	0.16	0.50	U
87-61-6	1,2,3-Trichlorobenzene	1	0.16	0.16	0.16	0.50	U
120-82-1	1,2,4-Trichlorobenzene	1	0.20	0.19	0.20	0.50	U
71-55-6	1,1,1-Trichloroethane	1	0.16	0.11	0.16	0.50	U
79-00-5	1,1,2-Trichloroethane	1	0.16	0.16	0.16	0.50	U
79-01-6	Trichloroethene	1	4.3	0.085	0.16	0.50	
75-69-4	Trichlorofluoromethane	1	0.16	0.13	0.16	0.50	U
96-18-4	1,2,3-Trichloropropane	1	0.33	0.24	0.33	0.50	U
95-63-6	1,2,4-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
108-67-8	1,3,5-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
75-01-4	Vinyl chloride	1	0.16	0.12	0.16	0.50	U
67-64-1	Acetone	1	5.0	4.6	5.0	10	U
994-05-8	t-Amyl Methyl ether	1	0.30	0.25	0.30	0.50	U
75-65-0	t-Butyl alcohol	1	10	9.4	10	15	U
75-15-0	Carbon disulfide	1	0.40	0.38	0.40	1.0	U
108-20-3	Diisopropyl ether	1	0.30	0.23	0.30	0.50	U
637-92-3	Ethyl t-butyl ether	1	0.20	0.18	0.20	0.50	U
78-93-3	Methyl ethyl ketone	1	3.0	2.5	3.0	10	U
179601-23-1	p- & m-Xylenes	1	0.30	0.28	0.30	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

M03-10_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-05</u>
Sampled:	<u>02/01/17 10:55</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
95-47-6	o-Xylene	1	0.16	0.082	0.16	0.50	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	10.750	108	81 - 118	
Toluene-d8 (Surrogate)	10.000	9.5000	95.0	89 - 112	
4-Bromofluorobenzene (Surrogate)	10.000	9.6900	96.9	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	195214	6.58	176929	6.58	
Chlorobenzene-d5 (IS)	65649	9.62	60035	9.62	
1,4-Difluorobenzene (IS)	269274	7.39	251715	7.39	

* Values outside of QC limits



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Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET

EPA-8260B

M03-18_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-06</u>
Sampled:	<u>02/01/17 09:00</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
71-43-2	Benzene	1	1.0	0.083	0.16	0.50	
108-86-1	Bromobenzene	1	0.16	0.13	0.16	0.50	U
74-97-5	Bromochloromethane	1	0.30	0.24	0.30	1.0	U
75-27-4	Bromodichloromethane	1	0.30	0.14	0.30	0.50	U
75-25-2	Bromoform	1	0.30	0.27	0.30	0.60	U
74-83-9	Bromomethane	1	0.25	0.25	0.25	0.60	U
104-51-8	n-Butylbenzene	1	0.16	0.11	0.16	0.50	U
135-98-8	sec-Butylbenzene	1	0.16	0.15	0.16	0.50	U
98-06-6	tert-Butylbenzene	1	0.16	0.13	0.16	0.50	U
56-23-5	Carbon tetrachloride	1	0.20	0.18	0.20	0.50	U
108-90-7	Chlorobenzene	1	0.16	0.093	0.16	0.50	U
75-00-3	Chloroethane	1	0.16	0.14	0.16	0.50	U
67-66-3	Chloroform	1	0.16	0.12	0.16	0.50	U
74-87-3	Chloromethane	1	0.16	0.14	0.16	0.50	U
95-49-8	2-Chlorotoluene	1	0.20	0.20	0.20	0.50	U
106-43-4	4-Chlorotoluene	1	0.16	0.15	0.16	0.50	U
124-48-1	Dibromochloromethane	1	0.16	0.13	0.16	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.50	0.44	0.50	1.0	U
106-93-4	1,2-Dibromoethane	1	0.16	0.16	0.16	0.50	U
74-95-3	Dibromomethane	1	0.30	0.24	0.30	1.0	U
95-50-1	1,2-Dichlorobenzene	1	0.16	0.072	0.16	0.50	U
541-73-1	1,3-Dichlorobenzene	1	0.16	0.15	0.16	0.50	U
106-46-7	1,4-Dichlorobenzene	1	0.16	0.062	0.16	0.50	U
75-71-8	Dichlorodifluoromethane	1	0.16	0.099	0.16	0.50	U
75-34-3	1,1-Dichloroethane	1	0.20	0.11	0.16	0.50	J
107-06-2	1,2-Dichloroethane	1	0.20	0.17	0.20	0.50	U
75-35-4	1,1-Dichloroethene	1	0.48	0.18	0.20	0.50	J
156-59-2	cis-1,2-Dichloroethene	1	17	0.085	0.16	0.50	
156-60-5	trans-1,2-Dichloroethene	1	6.4	0.15	0.16	0.50	
78-87-5	1,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U
142-28-9	1,3-Dichloropropane	1	0.16	0.086	0.16	0.50	U
594-20-7	2,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U



AMEC Environmental & Infrastructure
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Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET

EPA-8260B

M03-18_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-06</u>
Sampled:	<u>02/01/17 09:00</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
563-58-6	1,1-Dichloropropene	1	0.16	0.085	0.16	0.50	U
100-41-4	Ethylbenzene	1	0.16	0.098	0.16	0.50	U
87-68-3	Hexachlorobutadiene	1	0.20	0.17	0.20	0.50	U
98-82-8	Isopropylbenzene	1	0.16	0.14	0.16	0.50	U
99-87-6	p-Isopropyltoluene	1	0.16	0.12	0.16	0.50	U
75-09-2	Methylene chloride	1	0.50	0.48	0.50	1.0	U
1634-04-4	Methyl t-butyl ether	1	0.16	0.11	0.16	0.50	U
91-20-3	Naphthalene	1	7.2	0.36	0.40	0.50	
103-65-1	n-Propylbenzene	1	0.16	0.11	0.16	0.50	U
100-42-5	Styrene	1	0.16	0.068	0.16	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	1	0.20	0.18	0.20	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.20	0.17	0.20	0.50	U
127-18-4	Tetrachloroethene	1	0.16	0.13	0.16	0.50	U
108-88-3	Toluene	1	0.16	0.093	0.16	0.50	U
87-61-6	1,2,3-Trichlorobenzene	1	0.16	0.16	0.16	0.50	U
120-82-1	1,2,4-Trichlorobenzene	1	0.20	0.19	0.20	0.50	U
71-55-6	1,1,1-Trichloroethane	1	0.16	0.11	0.16	0.50	U
79-00-5	1,1,2-Trichloroethane	1	0.16	0.16	0.16	0.50	U
79-01-6	Trichloroethene	1	1.0	0.085	0.16	0.50	
75-69-4	Trichlorofluoromethane	1	0.16	0.13	0.16	0.50	U
96-18-4	1,2,3-Trichloropropane	1	0.33	0.24	0.33	0.50	U
95-63-6	1,2,4-Trimethylbenzene	1	0.82	0.12	0.16	0.50	
108-67-8	1,3,5-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
75-01-4	Vinyl chloride	1	2.6	0.12	0.16	0.50	
67-64-1	Acetone	1	5.0	4.6	5.0	10	U
994-05-8	t-Amyl Methyl ether	1	0.30	0.25	0.30	0.50	U
75-65-0	t-Butyl alcohol	1	10	9.4	10	15	U
75-15-0	Carbon disulfide	1	0.40	0.38	0.40	1.0	U
108-20-3	Diisopropyl ether	1	0.30	0.23	0.30	0.50	U
637-92-3	Ethyl t-butyl ether	1	0.20	0.18	0.20	0.50	U
78-93-3	Methyl ethyl ketone	1	3.0	2.5	3.0	10	U
179601-23-1	p- & m-Xylenes	1	0.52	0.28	0.30	0.50	



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

M03-18_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-06</u>
Sampled:	<u>02/01/17 09:00</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
95-47-6	o-Xylene	1	0.38	0.082	0.16	0.50	J

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	10.990	110	81 - 118	
Toluene-d8 (Surrogate)	10.000	9.9700	99.7	89 - 112	
4-Bromofluorobenzene (Surrogate)	10.000	10.000	100	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	175139	6.58	176929	6.58	
Chlorobenzene-d5 (IS)	60560	9.62	60035	9.62	
1,4-Difluorobenzene (IS)	237097	7.39	251715	7.39	

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET

EPA-8260B

M03-19_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-07</u>
Sampled:	<u>02/01/17 09:55</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702254</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
71-43-2	Benzene	1	0.16	0.083	0.16	0.50	U
108-86-1	Bromobenzene	1	0.16	0.13	0.16	0.50	U
74-97-5	Bromochloromethane	1	0.30	0.24	0.30	1.0	U
75-27-4	Bromodichloromethane	1	0.30	0.14	0.30	0.50	U
75-25-2	Bromoform	1	0.30	0.27	0.30	0.60	U
74-83-9	Bromomethane	1	0.25	0.25	0.25	0.60	U
104-51-8	n-Butylbenzene	1	0.16	0.11	0.16	0.50	U
135-98-8	sec-Butylbenzene	1	0.16	0.15	0.16	0.50	U
98-06-6	tert-Butylbenzene	1	0.16	0.13	0.16	0.50	U
56-23-5	Carbon tetrachloride	1	0.20	0.18	0.20	0.50	U
108-90-7	Chlorobenzene	1	0.16	0.093	0.16	0.50	U
75-00-3	Chloroethane	1	0.16	0.14	0.16	0.50	U
67-66-3	Chloroform	1	0.16	0.12	0.16	0.50	U
74-87-3	Chloromethane	1	0.16	0.14	0.16	0.50	U
95-49-8	2-Chlorotoluene	1	0.20	0.20	0.20	0.50	U
106-43-4	4-Chlorotoluene	1	0.16	0.15	0.16	0.50	U
124-48-1	Dibromochloromethane	1	0.16	0.13	0.16	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.50	0.44	0.50	1.0	U
106-93-4	1,2-Dibromoethane	1	0.16	0.16	0.16	0.50	U
74-95-3	Dibromomethane	1	0.30	0.24	0.30	1.0	U
95-50-1	1,2-Dichlorobenzene	1	0.16	0.072	0.16	0.50	U
541-73-1	1,3-Dichlorobenzene	1	0.16	0.15	0.16	0.50	U
106-46-7	1,4-Dichlorobenzene	1	0.16	0.062	0.16	0.50	U
75-71-8	Dichlorodifluoromethane	1	0.16	0.099	0.16	0.50	U
75-34-3	1,1-Dichloroethane	1	0.16	0.11	0.16	0.50	U
107-06-2	1,2-Dichloroethane	1	0.20	0.17	0.20	0.50	U
75-35-4	1,1-Dichloroethene	1	0.20	0.18	0.20	0.50	U
156-59-2	cis-1,2-Dichloroethene	1	0.16	0.085	0.16	0.50	U
156-60-5	trans-1,2-Dichloroethene	1	0.16	0.15	0.16	0.50	U
78-87-5	1,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U
142-28-9	1,3-Dichloropropane	1	0.16	0.086	0.16	0.50	U
594-20-7	2,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

M03-19_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>				
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>				
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-07</u>				
Sampled:	<u>02/01/17 09:55</u>	Prepared:	<u>02/08/17 07:15</u>				
Solids:		Preparation:	<u>EPA 5030 Water MS</u>				
Batch:	<u>B[B0714</u>	Sequence:	<u>1702254</u>	Calibration:	<u>1702011</u>	Initial/Final:	<u>25 ml / 25 ml</u>
						Instrument:	<u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
563-58-6	1,1-Dichloropropene	1	0.16	0.085	0.16	0.50	U
100-41-4	Ethylbenzene	1	0.16	0.098	0.16	0.50	U
87-68-3	Hexachlorobutadiene	1	0.20	0.17	0.20	0.50	U
98-82-8	Isopropylbenzene	1	0.16	0.14	0.16	0.50	U
99-87-6	p-Isopropyltoluene	1	0.16	0.12	0.16	0.50	U
75-09-2	Methylene chloride	1	0.50	0.48	0.50	1.0	U
1634-04-4	Methyl t-butyl ether	1	0.16	0.11	0.16	0.50	U
91-20-3	Naphthalene	1	0.40	0.36	0.40	0.50	U
103-65-1	n-Propylbenzene	1	0.16	0.11	0.16	0.50	U
100-42-5	Styrene	1	0.16	0.068	0.16	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	1	0.20	0.18	0.20	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.20	0.17	0.20	0.50	U
127-18-4	Tetrachloroethene	1	0.16	0.13	0.16	0.50	U
108-88-3	Toluene	1	0.16	0.093	0.16	0.50	U
87-61-6	1,2,3-Trichlorobenzene	1	0.16	0.16	0.16	0.50	U
120-82-1	1,2,4-Trichlorobenzene	1	0.20	0.19	0.20	0.50	U
71-55-6	1,1,1-Trichloroethane	1	0.16	0.11	0.16	0.50	U
79-00-5	1,1,2-Trichloroethane	1	0.16	0.16	0.16	0.50	U
79-01-6	Trichloroethene	1	0.16	0.085	0.16	0.50	U
75-69-4	Trichlorofluoromethane	1	0.16	0.13	0.16	0.50	U
96-18-4	1,2,3-Trichloropropane	1	0.33	0.24	0.33	0.50	U
95-63-6	1,2,4-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
108-67-8	1,3,5-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
75-01-4	Vinyl chloride	1	0.16	0.12	0.16	0.50	U
67-64-1	Acetone	1	5.0	4.6	5.0	10	U
994-05-8	t-Amyl Methyl ether	1	0.30	0.25	0.30	0.50	U
75-65-0	t-Butyl alcohol	1	10	9.4	10	15	U
75-15-0	Carbon disulfide	1	0.40	0.38	0.40	1.0	U
108-20-3	Diisopropyl ether	1	0.30	0.23	0.30	0.50	U
637-92-3	Ethyl t-butyl ether	1	0.20	0.18	0.20	0.50	U
78-93-3	Methyl ethyl ketone	1	3.0	2.5	3.0	10	U
179601-23-1	p- & m-Xylenes	1	0.30	0.28	0.30	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

M03-19_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-07</u>
Sampled:	<u>02/01/17 09:55</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702254</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
95-47-6	o-Xylene	1	0.16	0.082	0.16	0.50	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	10.520	105	81 - 118	
Toluene-d8 (Surrogate)	10.000	9.8700	98.7	89 - 112	
4-Bromofluorobenzene (Surrogate)	10.000	9.8700	98.7	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	202904	6.58	202038	6.58	
Chlorobenzene-d5 (IS)	69650	9.62	73786	9.62	
1,4-Difluorobenzene (IS)	277906	7.39	288051	7.39	

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET

EPA-8260B

MW360-1_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-08</u>
Sampled:	<u>02/01/17 11:00</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
71-43-2	Benzene	1	0.23	0.083	0.16	0.50	J
108-86-1	Bromobenzene	1	0.16	0.13	0.16	0.50	U
74-97-5	Bromochloromethane	1	0.30	0.24	0.30	1.0	U
75-27-4	Bromodichloromethane	1	0.30	0.14	0.30	0.50	U
75-25-2	Bromoform	1	0.30	0.27	0.30	0.60	U
74-83-9	Bromomethane	1	0.25	0.25	0.25	0.60	U
104-51-8	n-Butylbenzene	1	0.16	0.11	0.16	0.50	U
135-98-8	sec-Butylbenzene	1	0.16	0.15	0.16	0.50	J
98-06-6	tert-Butylbenzene	1	0.16	0.13	0.16	0.50	U
56-23-5	Carbon tetrachloride	1	0.20	0.18	0.20	0.50	U
108-90-7	Chlorobenzene	1	2.6	0.093	0.16	0.50	
75-00-3	Chloroethane	1	0.16	0.14	0.16	0.50	U
67-66-3	Chloroform	1	0.16	0.12	0.16	0.50	U
74-87-3	Chloromethane	1	0.16	0.14	0.16	0.50	U
95-49-8	2-Chlorotoluene	1	0.20	0.20	0.20	0.50	U
106-43-4	4-Chlorotoluene	1	0.16	0.15	0.16	0.50	U
124-48-1	Dibromochloromethane	1	0.16	0.13	0.16	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.50	0.44	0.50	1.0	U
106-93-4	1,2-Dibromoethane	1	0.16	0.16	0.16	0.50	U
74-95-3	Dibromomethane	1	0.30	0.24	0.30	1.0	U
541-73-1	1,3-Dichlorobenzene	1	4.8	0.15	0.16	0.50	
106-46-7	1,4-Dichlorobenzene	1	37	0.062	0.16	0.50	
75-71-8	Dichlorodifluoromethane	1	0.16	0.099	0.16	0.50	U
75-34-3	1,1-Dichloroethane	1	8.8	0.11	0.16	0.50	
107-06-2	1,2-Dichloroethane	1	0.20	0.17	0.20	0.50	U
75-35-4	1,1-Dichloroethene	1	15	0.18	0.20	0.50	
78-87-5	1,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U
142-28-9	1,3-Dichloropropane	1	0.16	0.086	0.16	0.50	U
594-20-7	2,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U
563-58-6	1,1-Dichloropropene	1	0.16	0.085	0.16	0.50	U
100-41-4	Ethylbenzene	1	0.16	0.098	0.16	0.50	U
87-68-3	Hexachlorobutadiene	1	0.20	0.17	0.20	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

MW360-1_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-08</u>
Sampled:	<u>02/01/17 11:00</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
98-82-8	Isopropylbenzene	1	0.16	0.14	0.16	0.50	U
99-87-6	p-Isopropyltoluene	1	0.16	0.12	0.16	0.50	U
75-09-2	Methylene chloride	1	0.50	0.48	0.50	1.0	U
1634-04-4	Methyl t-butyl ether	1	0.16	0.11	0.16	0.50	U
91-20-3	Naphthalene	1	0.40	0.36	0.40	0.50	U
103-65-1	n-Propylbenzene	1	0.16	0.11	0.16	0.50	U
100-42-5	Styrene	1	0.16	0.068	0.16	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	1	0.20	0.18	0.20	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.20	0.17	0.20	0.50	U
127-18-4	Tetrachloroethene	1	1.6	0.13	0.16	0.50	
108-88-3	Toluene	1	0.16	0.093	0.16	0.50	U
87-61-6	1,2,3-Trichlorobenzene	1	0.31	0.16	0.16	0.50	J
120-82-1	1,2,4-Trichlorobenzene	1	0.70	0.19	0.20	0.50	
71-55-6	1,1,1-Trichloroethane	1	0.16	0.11	0.16	0.50	U
79-00-5	1,1,2-Trichloroethane	1	0.16	0.16	0.16	0.50	U
75-69-4	Trichlorofluoromethane	1	0.16	0.13	0.16	0.50	U
96-18-4	1,2,3-Trichloropropane	1	0.33	0.24	0.33	0.50	U
95-63-6	1,2,4-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
108-67-8	1,3,5-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
75-01-4	Vinyl chloride	1	1.8	0.12	0.16	0.50	
67-64-1	Acetone	1	5.0	4.6	5.0	10	U
994-05-8	t-Amyl Methyl ether	1	0.30	0.25	0.30	0.50	U
75-65-0	t-Butyl alcohol	1	10	9.4	10	15	U
75-15-0	Carbon disulfide	1	0.40	0.38	0.40	1.0	U
108-20-3	Diisopropyl ether	1	0.82	0.23	0.30	0.50	
637-92-3	Ethyl t-butyl ether	1	0.20	0.18	0.20	0.50	U
78-93-3	Methyl ethyl ketone	1	3.0	2.5	3.0	10	U
179601-23-1	p- & m-Xylenes	1	0.30	0.28	0.30	0.50	U
95-47-6	o-Xylene	1	0.16	0.082	0.16	0.50	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	10.540	105	81 - 118	
Toluene-d8 (Surrogate)	10.000	10.350	104	89 - 112	



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

**ORGANIC ANALYSIS DATA SHEET
EPA-8260B****MW360-1_170201**

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Matrix: Water Laboratory ID: 1702918-08 File ID: 08FEB41.D
Sampled: 02/01/17 11:00 Prepared: 02/08/17 07:15 Analyzed: 02/08/17 21:05
Solids: Preparation: EPA 5030 Water MS Initial/Final: 25 ml / 25 ml
Batch: B[B0714 Sequence: 1702156 Calibration: 1702011 Instrument: MS-V5

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
4-Bromofluorobenzene (Surrogate)	10.000	9.8000	98.0	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	192686	6.58	176929	6.58	
Chlorobenzene-d5 (IS)	66734	9.62	60035	9.62	
1,4-Difluorobenzene (IS)	253480	7.39	251715	7.39	

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

MW360-1_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-08RE1</u>
Sampled:	<u>02/01/17 11:00</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702254</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
95-50-1	1,2-Dichlorobenzene	10	120	0.72	1.6	5.0	D
156-59-2	cis-1,2-Dichloroethene	10	340	0.85	1.6	5.0	D
156-60-5	trans-1,2-Dichloroethene	10	100	1.5	1.6	5.0	D

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	10.470	105	81 - 118	
Toluene-d8 (Surrogate)	10.000	9.5600	95.6	89 - 112	
4-Bromofluorobenzene (Surrogate)	10.000	9.9000	99.0	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	199742	6.58	202038	6.58	
Chlorobenzene-d5 (IS)	69189	9.62	73786	9.62	
1,4-Difluorobenzene (IS)	272474	7.39	288051	7.39	

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

MW360-1_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-08RE2</u>
Sampled:	<u>02/01/17 11:00</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702340</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
79-01-6	Trichloroethene	50	1700	4.2	8.0	25	D

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	10.980	110	81 - 118	
Toluene-d8 (Surrogate)	10.000	10.050	100	89 - 112	
4-Bromofluorobenzene (Surrogate)	10.000	9.3300	93.3	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	186607	6.58	187920	6.58	
Chlorobenzene-d5 (IS)	63736	9.62	66125	9.62	
1,4-Difluorobenzene (IS)	252668	7.39	261715	7.39	

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET

EPA-8260B

MW630-4_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-09</u>
Sampled:	<u>02/01/17 12:30</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
71-43-2	Benzene	1	0.16	0.083	0.16	0.50	U
108-86-1	Bromobenzene	1	0.16	0.13	0.16	0.50	U
74-97-5	Bromochloromethane	1	0.30	0.24	0.30	1.0	U
75-27-4	Bromodichloromethane	1	0.30	0.14	0.30	0.50	U
75-25-2	Bromoform	1	0.30	0.27	0.30	0.60	U
74-83-9	Bromomethane	1	0.25	0.25	0.25	0.60	U
104-51-8	n-Butylbenzene	1	0.16	0.11	0.16	0.50	U
135-98-8	sec-Butylbenzene	1	0.16	0.15	0.16	0.50	U
98-06-6	tert-Butylbenzene	1	0.16	0.13	0.16	0.50	U
56-23-5	Carbon tetrachloride	1	0.20	0.18	0.20	0.50	U
108-90-7	Chlorobenzene	1	8.8	0.093	0.16	0.50	
75-00-3	Chloroethane	1	0.16	0.14	0.16	0.50	U
67-66-3	Chloroform	1	0.16	0.12	0.16	0.50	U
74-87-3	Chloromethane	1	0.16	0.14	0.16	0.50	U
95-49-8	2-Chlorotoluene	1	0.20	0.20	0.20	0.50	U
106-43-4	4-Chlorotoluene	1	0.16	0.15	0.16	0.50	U
124-48-1	Dibromochloromethane	1	0.16	0.13	0.16	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.50	0.44	0.50	1.0	U
106-93-4	1,2-Dibromoethane	1	0.16	0.16	0.16	0.50	U
74-95-3	Dibromomethane	1	0.30	0.24	0.30	1.0	U
95-50-1	1,2-Dichlorobenzene	1	5.9	0.072	0.16	0.50	
541-73-1	1,3-Dichlorobenzene	1	0.29	0.15	0.16	0.50	J
106-46-7	1,4-Dichlorobenzene	1	2.2	0.062	0.16	0.50	
75-71-8	Dichlorodifluoromethane	1	0.16	0.099	0.16	0.50	U
75-34-3	1,1-Dichloroethane	1	1.5	0.11	0.16	0.50	
107-06-2	1,2-Dichloroethane	1	0.20	0.17	0.20	0.50	U
75-35-4	1,1-Dichloroethene	1	2.9	0.18	0.20	0.50	
156-60-5	trans-1,2-Dichloroethene	1	6.6	0.15	0.16	0.50	
78-87-5	1,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U
142-28-9	1,3-Dichloropropane	1	0.16	0.086	0.16	0.50	U
594-20-7	2,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U
563-58-6	1,1-Dichloropropene	1	0.16	0.085	0.16	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET

EPA-8260B

MW630-4_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-09</u>
Sampled:	<u>02/01/17 12:30</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
100-41-4	Ethylbenzene	1	0.16	0.098	0.16	0.50	U
87-68-3	Hexachlorobutadiene	1	0.20	0.17	0.20	0.50	U
98-82-8	Isopropylbenzene	1	0.16	0.14	0.16	0.50	U
99-87-6	p-Isopropyltoluene	1	0.16	0.12	0.16	0.50	U
75-09-2	Methylene chloride	1	0.50	0.48	0.50	1.0	U
1634-04-4	Methyl t-butyl ether	1	3.9	0.11	0.16	0.50	
91-20-3	Naphthalene	1	0.40	0.36	0.40	0.50	U
103-65-1	n-Propylbenzene	1	0.16	0.11	0.16	0.50	U
100-42-5	Styrene	1	0.16	0.068	0.16	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	1	0.20	0.18	0.20	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.20	0.17	0.20	0.50	U
127-18-4	Tetrachloroethene	1	0.16	0.13	0.16	0.50	U
108-88-3	Toluene	1	0.16	0.093	0.16	0.50	U
87-61-6	1,2,3-Trichlorobenzene	1	0.16	0.16	0.16	0.50	U
120-82-1	1,2,4-Trichlorobenzene	1	0.20	0.19	0.20	0.50	U
71-55-6	1,1,1-Trichloroethane	1	0.16	0.11	0.16	0.50	U
79-00-5	1,1,2-Trichloroethane	1	0.16	0.16	0.16	0.50	U
75-69-4	Trichlorofluoromethane	1	0.16	0.13	0.16	0.50	U
96-18-4	1,2,3-Trichloropropane	1	0.33	0.24	0.33	0.50	U
95-63-6	1,2,4-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
108-67-8	1,3,5-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
75-01-4	Vinyl chloride	1	0.58	0.12	0.16	0.50	
67-64-1	Acetone	1	5.0	4.6	5.0	10	U
994-05-8	t-Amyl Methyl ether	1	0.30	0.25	0.30	0.50	U
75-65-0	t-Butyl alcohol	1	10	9.4	10	15	U
75-15-0	Carbon disulfide	1	0.40	0.38	0.40	1.0	U
108-20-3	Diisopropyl ether	1	0.30	0.23	0.30	0.50	U
637-92-3	Ethyl t-butyl ether	1	0.20	0.18	0.20	0.50	U
78-93-3	Methyl ethyl ketone	1	3.0	2.5	3.0	10	U
179601-23-1	p- & m-Xylenes	1	0.30	0.28	0.30	0.50	U
95-47-6	o-Xylene	1	0.16	0.082	0.16	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

**ORGANIC ANALYSIS DATA SHEET
EPA-8260B****MW630-4_170201**

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Matrix: Water Laboratory ID: 1702918-09 File ID: 08FEB42.D
Sampled: 02/01/17 12:30 Prepared: 02/08/17 07:15 Analyzed: 02/08/17 21:28
Solids: Preparation: EPA 5030 Water MS Initial/Final: 25 ml / 25 ml
Batch: B[B0714 Sequence: 1702156 Calibration: 1702011 Instrument: MS-V5

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	10.890	109	81 - 118	
Toluene-d8 (Surrogate)	10.000	9.8900	98.9	89 - 112	
4-Bromofluorobenzene (Surrogate)	10.000	9.7500	97.5	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	193869	6.58	176929	6.58	
Chlorobenzene-d5 (IS)	66113	9.62	60035	9.62	
1,4-Difluorobenzene (IS)	267900	7.39	251715	7.39	

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

MW630-4_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-09RE1</u>
Sampled:	<u>02/01/17 12:30</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702254</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
156-59-2	cis-1,2-Dichloroethene	10	220	0.85	1.6	5.0	D
79-01-6	Trichloroethene	10	220	0.85	1.6	5.0	D

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	10.660	107	81 - 118	
Toluene-d8 (Surrogate)	10.000	9.9500	99.5	89 - 112	
4-Bromofluorobenzene (Surrogate)	10.000	9.8700	98.7	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	200360	6.58	202038	6.58	
Chlorobenzene-d5 (IS)	68541	9.62	73786	9.62	
1,4-Difluorobenzene (IS)	275849	7.39	288051	7.39	

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

P4-1-MWIB2_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-10</u>
Sampled:	<u>02/01/17 09:10</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
		Instrument:	<u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
71-43-2	Benzene	1	0.16	0.083	0.16	0.50	J
108-86-1	Bromobenzene	1	0.16	0.13	0.16	0.50	U
74-97-5	Bromochloromethane	1	0.30	0.24	0.30	1.0	U
75-27-4	Bromodichloromethane	1	0.30	0.14	0.30	0.50	U
75-25-2	Bromoform	1	0.30	0.27	0.30	0.60	U
74-83-9	Bromomethane	1	0.25	0.25	0.25	0.60	U
104-51-8	n-Butylbenzene	1	0.16	0.11	0.16	0.50	U
135-98-8	sec-Butylbenzene	1	0.16	0.15	0.16	0.50	U
98-06-6	tert-Butylbenzene	1	0.16	0.13	0.16	0.50	U
56-23-5	Carbon tetrachloride	1	0.20	0.18	0.20	0.50	U
108-90-7	Chlorobenzene	1	1.4	0.093	0.16	0.50	
75-00-3	Chloroethane	1	0.16	0.14	0.16	0.50	U
67-66-3	Chloroform	1	0.16	0.12	0.16	0.50	U
74-87-3	Chloromethane	1	0.16	0.14	0.16	0.50	U
95-49-8	2-Chlorotoluene	1	0.20	0.20	0.20	0.50	U
106-43-4	4-Chlorotoluene	1	0.16	0.15	0.16	0.50	U
124-48-1	Dibromochloromethane	1	0.16	0.13	0.16	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.50	0.44	0.50	1.0	U
106-93-4	1,2-Dibromoethane	1	0.16	0.16	0.16	0.50	U
74-95-3	Dibromomethane	1	0.30	0.24	0.30	1.0	U
95-50-1	1,2-Dichlorobenzene	1	24	0.072	0.16	0.50	
541-73-1	1,3-Dichlorobenzene	1	0.73	0.15	0.16	0.50	
106-46-7	1,4-Dichlorobenzene	1	6.1	0.062	0.16	0.50	
75-71-8	Dichlorodifluoromethane	1	0.16	0.099	0.16	0.50	U
75-34-3	1,1-Dichloroethane	1	2.2	0.11	0.16	0.50	
107-06-2	1,2-Dichloroethane	1	0.38	0.17	0.20	0.50	J
75-35-4	1,1-Dichloroethene	1	10	0.18	0.20	0.50	
156-60-5	trans-1,2-Dichloroethene	1	42	0.15	0.16	0.50	
78-87-5	1,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U
142-28-9	1,3-Dichloropropane	1	0.16	0.086	0.16	0.50	U
594-20-7	2,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U
563-58-6	1,1-Dichloropropene	1	0.16	0.085	0.16	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

P4-1-MWIB2_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-10</u>
Sampled:	<u>02/01/17 09:10</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
100-41-4	Ethylbenzene	1	0.16	0.098	0.16	0.50	U
87-68-3	Hexachlorobutadiene	1	0.20	0.17	0.20	0.50	U
98-82-8	Isopropylbenzene	1	0.16	0.14	0.16	0.50	U
99-87-6	p-Isopropyltoluene	1	0.16	0.12	0.16	0.50	U
75-09-2	Methylene chloride	1	0.50	0.48	0.50	1.0	U
1634-04-4	Methyl t-butyl ether	1	0.16	0.11	0.16	0.50	U
91-20-3	Naphthalene	1	0.40	0.36	0.40	0.50	U
103-65-1	n-Propylbenzene	1	0.16	0.11	0.16	0.50	U
100-42-5	Styrene	1	0.16	0.068	0.16	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	1	0.20	0.18	0.20	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.20	0.17	0.20	0.50	U
127-18-4	Tetrachloroethene	1	0.24	0.13	0.16	0.50	J
108-88-3	Toluene	1	0.16	0.093	0.16	0.50	U
87-61-6	1,2,3-Trichlorobenzene	1	0.16	0.16	0.16	0.50	U
120-82-1	1,2,4-Trichlorobenzene	1	0.20	0.19	0.20	0.50	U
71-55-6	1,1,1-Trichloroethane	1	0.16	0.11	0.16	0.50	U
79-00-5	1,1,2-Trichloroethane	1	0.16	0.16	0.16	0.50	U
75-69-4	Trichlorofluoromethane	1	0.16	0.13	0.16	0.50	U
96-18-4	1,2,3-Trichloropropane	1	0.33	0.24	0.33	0.50	U
95-63-6	1,2,4-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
108-67-8	1,3,5-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
67-64-1	Acetone	1	5.0	4.6	5.0	10	U
994-05-8	t-Amyl Methyl ether	1	0.30	0.25	0.30	0.50	U
75-65-0	t-Butyl alcohol	1	10	9.4	10	15	U
75-15-0	Carbon disulfide	1	0.40	0.38	0.40	1.0	U
108-20-3	Diisopropyl ether	1	0.42	0.23	0.30	0.50	J
637-92-3	Ethyl t-butyl ether	1	0.20	0.18	0.20	0.50	U
78-93-3	Methyl ethyl ketone	1	3.0	2.5	3.0	10	U
179601-23-1	p- & m-Xylenes	1	0.30	0.28	0.30	0.50	U
95-47-6	o-Xylene	1	0.16	0.082	0.16	0.50	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

P4-1-MWIB2_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-10</u>
Sampled:	<u>02/01/17 09:10</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
		Initial/Final:	<u>25 ml / 25 ml</u>
		Instrument:	<u>MS-V5</u>

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	10.330	103	81 - 118	
Toluene-d8 (Surrogate)	10.000	10.340	103	89 - 112	
4-Bromofluorobenzene (Surrogate)	10.000	9.9100	99.1	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	200055	6.58	190650	6.58	
Chlorobenzene-d5 (IS)	68451	9.62	66125	9.63	
1,4-Difluorobenzene (IS)	264159	7.39	266176	7.39	

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

P4-1-MWIB2_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-10RE1</u>
Sampled:	<u>02/01/17 09:10</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702340</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
156-59-2	cis-1,2-Dichloroethene	10	650	0.85	1.6	5.0	D
79-01-6	Trichloroethene	10	630	0.85	1.6	5.0	D
75-01-4	Vinyl chloride	10	180	1.2	1.6	5.0	D

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	10.570	106	81 - 118	
Toluene-d8 (Surrogate)	10.000	9.9700	99.7	89 - 112	
4-Bromofluorobenzene (Surrogate)	10.000	9.9500	99.5	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	189794	6.58	187920	6.58	
Chlorobenzene-d5 (IS)	64331	9.62	66125	9.62	
1,4-Difluorobenzene (IS)	260220	7.39	261715	7.39	

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET

EPA-8260B

P-4-1-MWS6_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-11</u>
Sampled:	<u>02/01/17 10:00</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
71-43-2	Benzene	1	0.16	0.083	0.16	0.50	U
108-86-1	Bromobenzene	1	0.16	0.13	0.16	0.50	U
74-97-5	Bromochloromethane	1	0.30	0.24	0.30	1.0	U
75-27-4	Bromodichloromethane	1	0.30	0.14	0.30	0.50	U
75-25-2	Bromoform	1	0.30	0.27	0.30	0.60	U
74-83-9	Bromomethane	1	0.25	0.25	0.25	0.60	U
104-51-8	n-Butylbenzene	1	0.16	0.11	0.16	0.50	U
135-98-8	sec-Butylbenzene	1	0.16	0.15	0.16	0.50	U
98-06-6	tert-Butylbenzene	1	0.16	0.13	0.16	0.50	U
56-23-5	Carbon tetrachloride	1	0.20	0.18	0.20	0.50	U
108-90-7	Chlorobenzene	1	0.16	0.093	0.16	0.50	U
75-00-3	Chloroethane	1	0.16	0.14	0.16	0.50	U
67-66-3	Chloroform	1	0.16	0.12	0.16	0.50	U
74-87-3	Chloromethane	1	0.16	0.14	0.16	0.50	U
95-49-8	2-Chlorotoluene	1	0.20	0.20	0.20	0.50	U
106-43-4	4-Chlorotoluene	1	0.16	0.15	0.16	0.50	U
124-48-1	Dibromochloromethane	1	0.16	0.13	0.16	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.50	0.44	0.50	1.0	U
106-93-4	1,2-Dibromoethane	1	0.16	0.16	0.16	0.50	U
74-95-3	Dibromomethane	1	0.30	0.24	0.30	1.0	U
95-50-1	1,2-Dichlorobenzene	1	0.28	0.072	0.16	0.50	J
541-73-1	1,3-Dichlorobenzene	1	0.16	0.15	0.16	0.50	U
106-46-7	1,4-Dichlorobenzene	1	0.16	0.062	0.16	0.50	U
75-71-8	Dichlorodifluoromethane	1	0.16	0.099	0.16	0.50	U
75-34-3	1,1-Dichloroethane	1	0.16	0.11	0.16	0.50	U
107-06-2	1,2-Dichloroethane	1	0.20	0.17	0.20	0.50	U
75-35-4	1,1-Dichloroethene	1	0.60	0.18	0.20	0.50	
156-59-2	cis-1,2-Dichloroethene	1	60	0.085	0.16	0.50	
156-60-5	trans-1,2-Dichloroethene	1	5.8	0.15	0.16	0.50	
78-87-5	1,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U
142-28-9	1,3-Dichloropropane	1	0.16	0.086	0.16	0.50	U
594-20-7	2,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

P-4-1-MWS6_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-11</u>
Sampled:	<u>02/01/17 10:00</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
		Instrument:	<u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
563-58-6	1,1-Dichloropropene	1	0.16	0.085	0.16	0.50	U
100-41-4	Ethylbenzene	1	0.16	0.098	0.16	0.50	U
87-68-3	Hexachlorobutadiene	1	0.20	0.17	0.20	0.50	U
98-82-8	Isopropylbenzene	1	0.16	0.14	0.16	0.50	U
99-87-6	p-Isopropyltoluene	1	0.16	0.12	0.16	0.50	U
75-09-2	Methylene chloride	1	0.50	0.48	0.50	1.0	U
1634-04-4	Methyl t-butyl ether	1	0.16	0.11	0.16	0.50	U
91-20-3	Naphthalene	1	0.40	0.36	0.40	0.50	U
103-65-1	n-Propylbenzene	1	0.16	0.11	0.16	0.50	U
100-42-5	Styrene	1	0.16	0.068	0.16	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	1	0.20	0.18	0.20	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.20	0.17	0.20	0.50	U
127-18-4	Tetrachloroethene	1	0.16	0.13	0.16	0.50	U
108-88-3	Toluene	1	0.16	0.093	0.16	0.50	U
87-61-6	1,2,3-Trichlorobenzene	1	0.16	0.16	0.16	0.50	U
120-82-1	1,2,4-Trichlorobenzene	1	0.20	0.19	0.20	0.50	U
71-55-6	1,1,1-Trichloroethane	1	0.16	0.11	0.16	0.50	U
79-00-5	1,1,2-Trichloroethane	1	0.16	0.16	0.16	0.50	U
79-01-6	Trichloroethene	1	9.4	0.085	0.16	0.50	
75-69-4	Trichlorofluoromethane	1	0.16	0.13	0.16	0.50	U
96-18-4	1,2,3-Trichloropropane	1	0.33	0.24	0.33	0.50	U
95-63-6	1,2,4-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
108-67-8	1,3,5-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
75-01-4	Vinyl chloride	1	4.5	0.12	0.16	0.50	
67-64-1	Acetone	1	5.0	4.6	5.0	10	U
994-05-8	t-Amyl Methyl ether	1	0.30	0.25	0.30	0.50	U
75-65-0	t-Butyl alcohol	1	10	9.4	10	15	U
75-15-0	Carbon disulfide	1	0.40	0.38	0.40	1.0	U
108-20-3	Diisopropyl ether	1	0.30	0.23	0.30	0.50	U
637-92-3	Ethyl t-butyl ether	1	0.20	0.18	0.20	0.50	U
78-93-3	Methyl ethyl ketone	1	3.0	2.5	3.0	10	U
179601-23-1	p- & m-Xylenes	1	0.30	0.28	0.30	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

P-4-1-MWS6_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-11</u>
Sampled:	<u>02/01/17 10:00</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
95-47-6	o-Xylene	1	0.16	0.082	0.16	0.50	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	11.020	110	81 - 118	
Toluene-d8 (Surrogate)	10.000	9.7400	97.4	89 - 112	
4-Bromofluorobenzene (Surrogate)	10.000	9.5800	95.8	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	186186	6.58	176929	6.58	
Chlorobenzene-d5 (IS)	66134	9.62	60035	9.62	
1,4-Difluorobenzene (IS)	258052	7.39	251715	7.39	

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

S4-TT-MW01_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-12</u>
Sampled:	<u>02/01/17 10:30</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
		Instrument:	<u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
71-43-2	Benzene	1	0.16	0.083	0.16	0.50	U
108-86-1	Bromobenzene	1	0.16	0.13	0.16	0.50	U
74-97-5	Bromochloromethane	1	0.30	0.24	0.30	1.0	U
75-27-4	Bromodichloromethane	1	0.30	0.14	0.30	0.50	U
75-25-2	Bromoform	1	0.30	0.27	0.30	0.60	U
74-83-9	Bromomethane	1	0.25	0.25	0.25	0.60	U
104-51-8	n-Butylbenzene	1	0.16	0.11	0.16	0.50	U
135-98-8	sec-Butylbenzene	1	0.16	0.15	0.16	0.50	U
98-06-6	tert-Butylbenzene	1	0.16	0.13	0.16	0.50	U
56-23-5	Carbon tetrachloride	1	0.20	0.18	0.20	0.50	U
108-90-7	Chlorobenzene	1	0.16	0.093	0.16	0.50	U
75-00-3	Chloroethane	1	0.16	0.14	0.16	0.50	U
67-66-3	Chloroform	1	0.16	0.12	0.16	0.50	U
74-87-3	Chloromethane	1	0.16	0.14	0.16	0.50	U
95-49-8	2-Chlorotoluene	1	0.20	0.20	0.20	0.50	U
106-43-4	4-Chlorotoluene	1	0.16	0.15	0.16	0.50	U
124-48-1	Dibromochloromethane	1	0.16	0.13	0.16	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.50	0.44	0.50	1.0	U
106-93-4	1,2-Dibromoethane	1	0.16	0.16	0.16	0.50	U
74-95-3	Dibromomethane	1	0.30	0.24	0.30	1.0	U
95-50-1	1,2-Dichlorobenzene	1	0.16	0.072	0.16	0.50	U
541-73-1	1,3-Dichlorobenzene	1	0.16	0.15	0.16	0.50	U
106-46-7	1,4-Dichlorobenzene	1	0.16	0.062	0.16	0.50	U
75-71-8	Dichlorodifluoromethane	1	0.16	0.099	0.16	0.50	U
75-34-3	1,1-Dichloroethane	1	0.16	0.11	0.16	0.50	U
107-06-2	1,2-Dichloroethane	1	0.20	0.17	0.20	0.50	U
75-35-4	1,1-Dichloroethene	1	0.20	0.18	0.20	0.50	U
156-59-2	cis-1,2-Dichloroethene	1	0.23	0.085	0.16	0.50	J
156-60-5	trans-1,2-Dichloroethene	1	0.16	0.15	0.16	0.50	U
78-87-5	1,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U
142-28-9	1,3-Dichloropropane	1	0.16	0.086	0.16	0.50	U
594-20-7	2,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET

EPA-8260B

S4-TT-MW01_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-12</u>
Sampled:	<u>02/01/17 10:30</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
563-58-6	1,1-Dichloropropene	1	0.16	0.085	0.16	0.50	U
100-41-4	Ethylbenzene	1	0.16	0.098	0.16	0.50	U
87-68-3	Hexachlorobutadiene	1	0.20	0.17	0.20	0.50	U
98-82-8	Isopropylbenzene	1	0.16	0.14	0.16	0.50	U
99-87-6	p-Isopropyltoluene	1	0.16	0.12	0.16	0.50	U
75-09-2	Methylene chloride	1	0.50	0.48	0.50	1.0	U
1634-04-4	Methyl t-butyl ether	1	0.16	0.11	0.16	0.50	U
91-20-3	Naphthalene	1	0.40	0.36	0.40	0.50	U
103-65-1	n-Propylbenzene	1	0.16	0.11	0.16	0.50	U
100-42-5	Styrene	1	0.16	0.068	0.16	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	1	0.20	0.18	0.20	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.20	0.17	0.20	0.50	U
127-18-4	Tetrachloroethene	1	0.16	0.13	0.16	0.50	U
108-88-3	Toluene	1	0.16	0.093	0.16	0.50	U
87-61-6	1,2,3-Trichlorobenzene	1	0.16	0.16	0.16	0.50	U
120-82-1	1,2,4-Trichlorobenzene	1	0.20	0.19	0.20	0.50	U
71-55-6	1,1,1-Trichloroethane	1	0.16	0.11	0.16	0.50	U
79-00-5	1,1,2-Trichloroethane	1	0.16	0.16	0.16	0.50	U
79-01-6	Trichloroethene	1	0.84	0.085	0.16	0.50	
75-69-4	Trichlorofluoromethane	1	0.16	0.13	0.16	0.50	U
96-18-4	1,2,3-Trichloropropane	1	0.33	0.24	0.33	0.50	U
95-63-6	1,2,4-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
108-67-8	1,3,5-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
75-01-4	Vinyl chloride	1	0.16	0.12	0.16	0.50	U
67-64-1	Acetone	1	5.0	4.6	5.0	10	U
994-05-8	t-Amyl Methyl ether	1	0.30	0.25	0.30	0.50	U
75-65-0	t-Butyl alcohol	1	10	9.4	10	15	U
75-15-0	Carbon disulfide	1	0.40	0.38	0.40	1.0	U
108-20-3	Diisopropyl ether	1	0.30	0.23	0.30	0.50	U
637-92-3	Ethyl t-butyl ether	1	0.20	0.18	0.20	0.50	U
78-93-3	Methyl ethyl ketone	1	3.0	2.5	3.0	10	U
179601-23-1	p- & m-Xylenes	1	0.30	0.28	0.30	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

S4-TT-MW01_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-12</u>
Sampled:	<u>02/01/17 10:30</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
95-47-6	o-Xylene	1	0.16	0.082	0.16	0.50	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	10.500	105	81 - 118	
Toluene-d8 (Surrogate)	10.000	9.7500	97.5	89 - 112	
4-Bromofluorobenzene (Surrogate)	10.000	9.5400	95.4	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	192057	6.58	176929	6.58	
Chlorobenzene-d5 (IS)	67667	9.62	60035	9.62	
1,4-Difluorobenzene (IS)	267111	7.39	251715	7.39	

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET

EPA-8260B

372-MW1_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-13</u>
Sampled:	<u>02/01/17 13:00</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
71-43-2	Benzene	1	0.16	0.083	0.16	0.50	U
108-86-1	Bromobenzene	1	0.16	0.13	0.16	0.50	U
74-97-5	Bromochloromethane	1	0.30	0.24	0.30	1.0	U
75-27-4	Bromodichloromethane	1	0.30	0.14	0.30	0.50	U
75-25-2	Bromoform	1	0.30	0.27	0.30	0.60	U
74-83-9	Bromomethane	1	0.25	0.25	0.25	0.60	U
104-51-8	n-Butylbenzene	1	0.16	0.11	0.16	0.50	U
135-98-8	sec-Butylbenzene	1	0.16	0.15	0.16	0.50	U
98-06-6	tert-Butylbenzene	1	0.16	0.13	0.16	0.50	U
56-23-5	Carbon tetrachloride	1	0.20	0.18	0.20	0.50	U
108-90-7	Chlorobenzene	1	0.16	0.093	0.16	0.50	U
75-00-3	Chloroethane	1	0.16	0.14	0.16	0.50	U
67-66-3	Chloroform	1	0.16	0.12	0.16	0.50	U
74-87-3	Chloromethane	1	0.16	0.14	0.16	0.50	U
95-49-8	2-Chlorotoluene	1	0.20	0.20	0.20	0.50	U
106-43-4	4-Chlorotoluene	1	0.16	0.15	0.16	0.50	U
124-48-1	Dibromochloromethane	1	0.16	0.13	0.16	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.50	0.44	0.50	1.0	U
106-93-4	1,2-Dibromoethane	1	0.16	0.16	0.16	0.50	U
74-95-3	Dibromomethane	1	0.30	0.24	0.30	1.0	U
95-50-1	1,2-Dichlorobenzene	1	0.16	0.072	0.16	0.50	U
541-73-1	1,3-Dichlorobenzene	1	0.16	0.15	0.16	0.50	U
106-46-7	1,4-Dichlorobenzene	1	0.16	0.062	0.16	0.50	U
75-71-8	Dichlorodifluoromethane	1	0.16	0.099	0.16	0.50	U
75-34-3	1,1-Dichloroethane	1	0.16	0.11	0.16	0.50	U
107-06-2	1,2-Dichloroethane	1	0.20	0.17	0.20	0.50	U
75-35-4	1,1-Dichloroethene	1	0.20	0.18	0.20	0.50	U
156-59-2	cis-1,2-Dichloroethene	1	0.16	0.085	0.16	0.50	U
156-60-5	trans-1,2-Dichloroethene	1	0.16	0.15	0.16	0.50	U
78-87-5	1,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U
142-28-9	1,3-Dichloropropane	1	0.16	0.086	0.16	0.50	U
594-20-7	2,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET

EPA-8260B

372-MW1_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-13</u>
Sampled:	<u>02/01/17 13:00</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
563-58-6	1,1-Dichloropropene	1	0.16	0.085	0.16	0.50	U
100-41-4	Ethylbenzene	1	0.16	0.098	0.16	0.50	U
87-68-3	Hexachlorobutadiene	1	0.20	0.17	0.20	0.50	U
98-82-8	Isopropylbenzene	1	0.16	0.14	0.16	0.50	U
99-87-6	p-Isopropyltoluene	1	0.16	0.12	0.16	0.50	U
75-09-2	Methylene chloride	1	0.50	0.48	0.50	1.0	U
1634-04-4	Methyl t-butyl ether	1	0.16	0.11	0.16	0.50	U
91-20-3	Naphthalene	1	0.40	0.36	0.40	0.50	U
103-65-1	n-Propylbenzene	1	0.16	0.11	0.16	0.50	U
100-42-5	Styrene	1	0.16	0.068	0.16	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	1	0.20	0.18	0.20	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.20	0.17	0.20	0.50	U
127-18-4	Tetrachloroethene	1	0.16	0.13	0.16	0.50	U
108-88-3	Toluene	1	0.16	0.093	0.16	0.50	U
87-61-6	1,2,3-Trichlorobenzene	1	0.16	0.16	0.16	0.50	U
120-82-1	1,2,4-Trichlorobenzene	1	0.20	0.19	0.20	0.50	U
71-55-6	1,1,1-Trichloroethane	1	0.16	0.11	0.16	0.50	U
79-00-5	1,1,2-Trichloroethane	1	0.16	0.16	0.16	0.50	U
79-01-6	Trichloroethene	1	0.61	0.085	0.16	0.50	
75-69-4	Trichlorofluoromethane	1	0.16	0.13	0.16	0.50	U
96-18-4	1,2,3-Trichloropropane	1	0.33	0.24	0.33	0.50	U
95-63-6	1,2,4-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
108-67-8	1,3,5-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
75-01-4	Vinyl chloride	1	0.16	0.12	0.16	0.50	U
67-64-1	Acetone	1	5.0	4.6	5.0	10	U
994-05-8	t-Amyl Methyl ether	1	0.30	0.25	0.30	0.50	U
75-65-0	t-Butyl alcohol	1	10	9.4	10	15	U
75-15-0	Carbon disulfide	1	0.40	0.38	0.40	1.0	U
108-20-3	Diisopropyl ether	1	0.30	0.23	0.30	0.50	U
637-92-3	Ethyl t-butyl ether	1	0.20	0.18	0.20	0.50	U
78-93-3	Methyl ethyl ketone	1	3.0	2.5	3.0	10	U
179601-23-1	p- & m-Xylenes	1	0.30	0.28	0.30	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

372-MW1_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-13</u>
Sampled:	<u>02/01/17 13:00</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
95-47-6	o-Xylene	1	0.16	0.082	0.16	0.50	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	10.300	103	81 - 118	
Toluene-d8 (Surrogate)	10.000	9.9700	99.7	89 - 112	
4-Bromofluorobenzene (Surrogate)	10.000	9.9100	99.1	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	207906	6.58	176929	6.58	
Chlorobenzene-d5 (IS)	67646	9.62	60035	9.62	
1,4-Difluorobenzene (IS)	275287	7.39	251715	7.39	

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET

EPA-8260B

EB15_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>					
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>		Project:	<u>Alameda</u>				
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-14</u>		File ID:	<u>08FEB46.D</u>		
Sampled:	<u>02/01/17 14:30</u>	Prepared:	<u>02/08/17 07:15</u>		Analyzed:	<u>02/08/17 23:02</u>		
Solids:			Preparation:	<u>EPA 5030 Water MS</u>		Initial/Final:	<u>25 ml / 25 ml</u>	
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>	Calibration:	<u>1702011</u>	Instrument:	<u>MS-V5</u>	
CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q	
71-43-2	Benzene	1	0.16	0.083	0.16	0.50	U	
108-86-1	Bromobenzene	1	0.16	0.13	0.16	0.50	U	
74-97-5	Bromochloromethane	1	0.30	0.24	0.30	1.0	U	
75-27-4	Bromodichloromethane	1	0.30	0.14	0.30	0.50	U	
75-25-2	Bromoform	1	0.30	0.27	0.30	0.60	U	
74-83-9	Bromomethane	1	0.25	0.25	0.25	0.60	U	
104-51-8	n-Butylbenzene	1	0.16	0.11	0.16	0.50	U	
135-98-8	sec-Butylbenzene	1	0.16	0.15	0.16	0.50	U	
98-06-6	tert-Butylbenzene	1	0.16	0.13	0.16	0.50	U	
56-23-5	Carbon tetrachloride	1	0.20	0.18	0.20	0.50	U	
108-90-7	Chlorobenzene	1	0.16	0.093	0.16	0.50	U	
75-00-3	Chloroethane	1	0.16	0.14	0.16	0.50	U	
67-66-3	Chloroform	1	0.16	0.12	0.16	0.50	U	
74-87-3	Chloromethane	1	0.16	0.14	0.16	0.50	U	
95-49-8	2-Chlorotoluene	1	0.20	0.20	0.20	0.50	U	
106-43-4	4-Chlorotoluene	1	0.16	0.15	0.16	0.50	U	
124-48-1	Dibromochloromethane	1	0.16	0.13	0.16	0.50	U	
96-12-8	1,2-Dibromo-3-chloropropane	1	0.50	0.44	0.50	1.0	U	
106-93-4	1,2-Dibromoethane	1	0.16	0.16	0.16	0.50	U	
74-95-3	Dibromomethane	1	0.30	0.24	0.30	1.0	U	
95-50-1	1,2-Dichlorobenzene	1	0.16	0.072	0.16	0.50	U	
541-73-1	1,3-Dichlorobenzene	1	0.16	0.15	0.16	0.50	U	
106-46-7	1,4-Dichlorobenzene	1	0.16	0.062	0.16	0.50	U	
75-71-8	Dichlorodifluoromethane	1	0.16	0.099	0.16	0.50	U	
75-34-3	1,1-Dichloroethane	1	0.16	0.11	0.16	0.50	U	
107-06-2	1,2-Dichloroethane	1	0.20	0.17	0.20	0.50	U	
75-35-4	1,1-Dichloroethene	1	0.20	0.18	0.20	0.50	U	
156-59-2	cis-1,2-Dichloroethene	1	0.16	0.085	0.16	0.50	U	
156-60-5	trans-1,2-Dichloroethene	1	0.16	0.15	0.16	0.50	U	
78-87-5	1,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U	
142-28-9	1,3-Dichloropropane	1	0.16	0.086	0.16	0.50	U	
594-20-7	2,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U	



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET

EPA-8260B

EB15_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-14</u>
Sampled:	<u>02/01/17 14:30</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
563-58-6	1,1-Dichloropropene	1	0.16	0.085	0.16	0.50	U
100-41-4	Ethylbenzene	1	0.16	0.098	0.16	0.50	U
87-68-3	Hexachlorobutadiene	1	0.20	0.17	0.20	0.50	U
98-82-8	Isopropylbenzene	1	0.16	0.14	0.16	0.50	U
99-87-6	p-Isopropyltoluene	1	0.16	0.12	0.16	0.50	U
75-09-2	Methylene chloride	1	0.50	0.48	0.50	1.0	U
1634-04-4	Methyl t-butyl ether	1	0.16	0.11	0.16	0.50	U
91-20-3	Naphthalene	1	0.40	0.36	0.40	0.50	U
103-65-1	n-Propylbenzene	1	0.16	0.11	0.16	0.50	U
100-42-5	Styrene	1	0.16	0.068	0.16	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	1	0.20	0.18	0.20	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.20	0.17	0.20	0.50	U
127-18-4	Tetrachloroethene	1	0.16	0.13	0.16	0.50	U
108-88-3	Toluene	1	0.16	0.093	0.16	0.50	U
87-61-6	1,2,3-Trichlorobenzene	1	0.16	0.16	0.16	0.50	U
120-82-1	1,2,4-Trichlorobenzene	1	0.20	0.19	0.20	0.50	U
71-55-6	1,1,1-Trichloroethane	1	0.16	0.11	0.16	0.50	U
79-00-5	1,1,2-Trichloroethane	1	0.16	0.16	0.16	0.50	U
79-01-6	Trichloroethene	1	0.46	0.085	0.16	0.50	J
75-69-4	Trichlorofluoromethane	1	0.16	0.13	0.16	0.50	U
96-18-4	1,2,3-Trichloropropane	1	0.33	0.24	0.33	0.50	U
95-63-6	1,2,4-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
108-67-8	1,3,5-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
75-01-4	Vinyl chloride	1	0.16	0.12	0.16	0.50	U
67-64-1	Acetone	1	5.0	4.6	5.0	10	U
994-05-8	t-Amyl Methyl ether	1	0.30	0.25	0.30	0.50	U
75-65-0	t-Butyl alcohol	1	10	9.4	10	15	U
75-15-0	Carbon disulfide	1	0.40	0.38	0.40	1.0	U
108-20-3	Diisopropyl ether	1	0.30	0.23	0.30	0.50	U
637-92-3	Ethyl t-butyl ether	1	0.20	0.18	0.20	0.50	U
78-93-3	Methyl ethyl ketone	1	3.0	2.5	3.0	10	U
179601-23-1	p- & m-Xylenes	1	0.30	0.28	0.30	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

EB15_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-14</u>
Sampled:	<u>02/01/17 14:30</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
95-47-6	o-Xylene	1	0.16	0.082	0.16	0.50	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	10.710	107	81 - 118	
Toluene-d8 (Surrogate)	10.000	9.7800	97.8	89 - 112	
4-Bromofluorobenzene (Surrogate)	10.000	9.6000	96.0	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	199977	6.59	176929	6.58	
Chlorobenzene-d5 (IS)	65882	9.62	60035	9.62	
1,4-Difluorobenzene (IS)	271038	7.39	251715	7.39	

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

EB16_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-15</u>
Sampled:	<u>02/01/17 14:45</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
71-43-2	Benzene	1	0.16	0.083	0.16	0.50	U
108-86-1	Bromobenzene	1	0.16	0.13	0.16	0.50	U
74-97-5	Bromochloromethane	1	0.30	0.24	0.30	1.0	U
75-27-4	Bromodichloromethane	1	0.30	0.14	0.30	0.50	U
75-25-2	Bromoform	1	0.30	0.27	0.30	0.60	U
74-83-9	Bromomethane	1	0.25	0.25	0.25	0.60	U
104-51-8	n-Butylbenzene	1	0.16	0.11	0.16	0.50	U
135-98-8	sec-Butylbenzene	1	0.16	0.15	0.16	0.50	U
98-06-6	tert-Butylbenzene	1	0.16	0.13	0.16	0.50	U
56-23-5	Carbon tetrachloride	1	0.20	0.18	0.20	0.50	U
108-90-7	Chlorobenzene	1	0.16	0.093	0.16	0.50	U
75-00-3	Chloroethane	1	0.16	0.14	0.16	0.50	U
67-66-3	Chloroform	1	0.16	0.12	0.16	0.50	U
74-87-3	Chloromethane	1	0.16	0.14	0.16	0.50	U
95-49-8	2-Chlorotoluene	1	0.20	0.20	0.20	0.50	U
106-43-4	4-Chlorotoluene	1	0.16	0.15	0.16	0.50	U
124-48-1	Dibromochloromethane	1	0.16	0.13	0.16	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.50	0.44	0.50	1.0	U
106-93-4	1,2-Dibromoethane	1	0.16	0.16	0.16	0.50	U
74-95-3	Dibromomethane	1	0.30	0.24	0.30	1.0	U
95-50-1	1,2-Dichlorobenzene	1	0.16	0.072	0.16	0.50	U
541-73-1	1,3-Dichlorobenzene	1	0.16	0.15	0.16	0.50	U
106-46-7	1,4-Dichlorobenzene	1	0.16	0.062	0.16	0.50	U
75-71-8	Dichlorodifluoromethane	1	0.16	0.099	0.16	0.50	U
75-34-3	1,1-Dichloroethane	1	0.16	0.11	0.16	0.50	U
107-06-2	1,2-Dichloroethane	1	0.20	0.17	0.20	0.50	U
75-35-4	1,1-Dichloroethene	1	0.20	0.18	0.20	0.50	U
156-59-2	cis-1,2-Dichloroethene	1	0.16	0.085	0.16	0.50	U
156-60-5	trans-1,2-Dichloroethene	1	0.16	0.15	0.16	0.50	U
78-87-5	1,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U
142-28-9	1,3-Dichloropropane	1	0.16	0.086	0.16	0.50	U
594-20-7	2,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET

EPA-8260B

EB16_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-15</u>
Sampled:	<u>02/01/17 14:45</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
563-58-6	1,1-Dichloropropene	1	0.16	0.085	0.16	0.50	U
100-41-4	Ethylbenzene	1	0.16	0.098	0.16	0.50	U
87-68-3	Hexachlorobutadiene	1	0.20	0.17	0.20	0.50	U
98-82-8	Isopropylbenzene	1	0.16	0.14	0.16	0.50	U
99-87-6	p-Isopropyltoluene	1	0.16	0.12	0.16	0.50	U
75-09-2	Methylene chloride	1	0.50	0.48	0.50	1.0	U
1634-04-4	Methyl t-butyl ether	1	0.16	0.11	0.16	0.50	U
91-20-3	Naphthalene	1	0.40	0.36	0.40	0.50	U
103-65-1	n-Propylbenzene	1	0.16	0.11	0.16	0.50	U
100-42-5	Styrene	1	0.16	0.068	0.16	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	1	0.20	0.18	0.20	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.20	0.17	0.20	0.50	U
127-18-4	Tetrachloroethene	1	0.16	0.13	0.16	0.50	U
108-88-3	Toluene	1	0.16	0.093	0.16	0.50	U
87-61-6	1,2,3-Trichlorobenzene	1	0.16	0.16	0.16	0.50	U
120-82-1	1,2,4-Trichlorobenzene	1	0.20	0.19	0.20	0.50	U
71-55-6	1,1,1-Trichloroethane	1	0.16	0.11	0.16	0.50	U
79-00-5	1,1,2-Trichloroethane	1	0.16	0.16	0.16	0.50	U
79-01-6	Trichloroethene	1	0.29	0.085	0.16	0.50	J
75-69-4	Trichlorofluoromethane	1	0.16	0.13	0.16	0.50	U
96-18-4	1,2,3-Trichloropropane	1	0.33	0.24	0.33	0.50	U
95-63-6	1,2,4-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
108-67-8	1,3,5-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
75-01-4	Vinyl chloride	1	0.16	0.12	0.16	0.50	U
67-64-1	Acetone	1	5.0	4.6	5.0	10	U
994-05-8	t-Amyl Methyl ether	1	0.30	0.25	0.30	0.50	U
75-65-0	t-Butyl alcohol	1	10	9.4	10	15	U
75-15-0	Carbon disulfide	1	0.40	0.38	0.40	1.0	U
108-20-3	Diisopropyl ether	1	0.30	0.23	0.30	0.50	U
637-92-3	Ethyl t-butyl ether	1	0.20	0.18	0.20	0.50	U
78-93-3	Methyl ethyl ketone	1	3.0	2.5	3.0	10	U
179601-23-1	p- & m-Xylenes	1	0.30	0.28	0.30	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

EB16_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-15</u>
Sampled:	<u>02/01/17 14:45</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
95-47-6	o-Xylene	1	0.16	0.082	0.16	0.50	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	10.550	106	81 - 118	
Toluene-d8 (Surrogate)	10.000	9.8300	98.3	89 - 112	
4-Bromofluorobenzene (Surrogate)	10.000	9.5400	95.4	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	193125	6.59	176929	6.58	
Chlorobenzene-d5 (IS)	62304	9.63	60035	9.62	
1,4-Difluorobenzene (IS)	259812	7.39	251715	7.39	

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

M03-05_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-16</u>
Sampled:	<u>02/01/17 13:35</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
71-43-2	Benzene	1	0.16	0.083	0.16	0.50	U
108-86-1	Bromobenzene	1	0.16	0.13	0.16	0.50	U
74-97-5	Bromochloromethane	1	0.30	0.24	0.30	1.0	U
75-27-4	Bromodichloromethane	1	0.30	0.14	0.30	0.50	U
75-25-2	Bromoform	1	0.30	0.27	0.30	0.60	U
74-83-9	Bromomethane	1	0.25	0.25	0.25	0.60	U
104-51-8	n-Butylbenzene	1	0.16	0.11	0.16	0.50	U
135-98-8	sec-Butylbenzene	1	0.16	0.15	0.16	0.50	U
98-06-6	tert-Butylbenzene	1	0.16	0.13	0.16	0.50	U
56-23-5	Carbon tetrachloride	1	0.20	0.18	0.20	0.50	U
108-90-7	Chlorobenzene	1	0.16	0.093	0.16	0.50	U
75-00-3	Chloroethane	1	0.16	0.14	0.16	0.50	U
67-66-3	Chloroform	1	0.16	0.12	0.16	0.50	U
74-87-3	Chloromethane	1	0.16	0.14	0.16	0.50	U
95-49-8	2-Chlorotoluene	1	0.20	0.20	0.20	0.50	U
106-43-4	4-Chlorotoluene	1	0.16	0.15	0.16	0.50	U
124-48-1	Dibromochloromethane	1	0.16	0.13	0.16	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.50	0.44	0.50	1.0	U
106-93-4	1,2-Dibromoethane	1	0.16	0.16	0.16	0.50	U
74-95-3	Dibromomethane	1	0.30	0.24	0.30	1.0	U
95-50-1	1,2-Dichlorobenzene	1	0.16	0.072	0.16	0.50	U
541-73-1	1,3-Dichlorobenzene	1	0.16	0.15	0.16	0.50	U
106-46-7	1,4-Dichlorobenzene	1	0.16	0.062	0.16	0.50	U
75-71-8	Dichlorodifluoromethane	1	0.16	0.099	0.16	0.50	U
75-34-3	1,1-Dichloroethane	1	0.16	0.11	0.16	0.50	U
107-06-2	1,2-Dichloroethane	1	0.20	0.17	0.20	0.50	U
75-35-4	1,1-Dichloroethene	1	0.20	0.18	0.20	0.50	U
156-59-2	cis-1,2-Dichloroethene	1	0.16	0.085	0.16	0.50	U
156-60-5	trans-1,2-Dichloroethene	1	0.18	0.15	0.16	0.50	J
78-87-5	1,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U
142-28-9	1,3-Dichloropropane	1	0.16	0.086	0.16	0.50	U
594-20-7	2,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET

EPA-8260B

M03-05_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-16</u>
Sampled:	<u>02/01/17 13:35</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
563-58-6	1,1-Dichloropropene	1	0.16	0.085	0.16	0.50	U
100-41-4	Ethylbenzene	1	0.16	0.098	0.16	0.50	U
87-68-3	Hexachlorobutadiene	1	0.20	0.17	0.20	0.50	U
98-82-8	Isopropylbenzene	1	0.16	0.14	0.16	0.50	U
99-87-6	p-Isopropyltoluene	1	0.16	0.12	0.16	0.50	U
75-09-2	Methylene chloride	1	0.50	0.48	0.50	1.0	U
1634-04-4	Methyl t-butyl ether	1	0.16	0.11	0.16	0.50	U
91-20-3	Naphthalene	1	0.40	0.36	0.40	0.50	U
103-65-1	n-Propylbenzene	1	0.16	0.11	0.16	0.50	U
100-42-5	Styrene	1	0.16	0.068	0.16	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	1	0.20	0.18	0.20	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.20	0.17	0.20	0.50	U
127-18-4	Tetrachloroethene	1	0.16	0.13	0.16	0.50	U
108-88-3	Toluene	1	0.16	0.093	0.16	0.50	U
87-61-6	1,2,3-Trichlorobenzene	1	0.16	0.16	0.16	0.50	U
120-82-1	1,2,4-Trichlorobenzene	1	0.20	0.19	0.20	0.50	U
71-55-6	1,1,1-Trichloroethane	1	0.16	0.11	0.16	0.50	U
79-00-5	1,1,2-Trichloroethane	1	0.16	0.16	0.16	0.50	U
79-01-6	Trichloroethene	1	0.28	0.085	0.16	0.50	J
75-69-4	Trichlorofluoromethane	1	0.16	0.13	0.16	0.50	U
96-18-4	1,2,3-Trichloropropane	1	0.33	0.24	0.33	0.50	U
95-63-6	1,2,4-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
108-67-8	1,3,5-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
75-01-4	Vinyl chloride	1	0.16	0.12	0.16	0.50	U
67-64-1	Acetone	1	5.0	4.6	5.0	10	U
994-05-8	t-Amyl Methyl ether	1	0.30	0.25	0.30	0.50	U
75-65-0	t-Butyl alcohol	1	10	9.4	10	15	U
75-15-0	Carbon disulfide	1	0.40	0.38	0.40	1.0	U
108-20-3	Diisopropyl ether	1	0.30	0.23	0.30	0.50	U
637-92-3	Ethyl t-butyl ether	1	0.20	0.18	0.20	0.50	U
78-93-3	Methyl ethyl ketone	1	3.0	2.5	3.0	10	U
179601-23-1	p- & m-Xylenes	1	0.30	0.28	0.30	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

M03-05_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-16</u>
Sampled:	<u>02/01/17 13:35</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
95-47-6	o-Xylene	1	0.16	0.082	0.16	0.50	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	11.140	111	81 - 118	
Toluene-d8 (Surrogate)	10.000	9.7500	97.5	89 - 112	
4-Bromofluorobenzene (Surrogate)	10.000	9.8300	98.3	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	192623	6.59	176929	6.58	
Chlorobenzene-d5 (IS)	61853	9.62	60035	9.62	
1,4-Difluorobenzene (IS)	258725	7.39	251715	7.39	

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

M03-17_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-17</u>
Sampled:	<u>02/01/17 12:40</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
71-43-2	Benzene	1	2.8	0.083	0.16	0.50	
108-86-1	Bromobenzene	1	0.16	0.13	0.16	0.50	U
74-97-5	Bromochloromethane	1	0.30	0.24	0.30	1.0	U
75-27-4	Bromodichloromethane	1	0.30	0.14	0.30	0.50	U
75-25-2	Bromoform	1	0.30	0.27	0.30	0.60	U
74-83-9	Bromomethane	1	0.25	0.25	0.25	0.60	U
104-51-8	n-Butylbenzene	1	0.16	0.11	0.16	0.50	U
135-98-8	sec-Butylbenzene	1	0.16	0.15	0.16	0.50	U
98-06-6	tert-Butylbenzene	1	0.16	0.13	0.16	0.50	U
56-23-5	Carbon tetrachloride	1	0.20	0.18	0.20	0.50	U
108-90-7	Chlorobenzene	1	0.16	0.093	0.16	0.50	U
75-00-3	Chloroethane	1	0.16	0.14	0.16	0.50	U
67-66-3	Chloroform	1	0.16	0.12	0.16	0.50	U
74-87-3	Chloromethane	1	0.16	0.14	0.16	0.50	U
95-49-8	2-Chlorotoluene	1	0.20	0.20	0.20	0.50	U
106-43-4	4-Chlorotoluene	1	0.16	0.15	0.16	0.50	U
124-48-1	Dibromochloromethane	1	0.16	0.13	0.16	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.50	0.44	0.50	1.0	U
106-93-4	1,2-Dibromoethane	1	0.16	0.16	0.16	0.50	U
74-95-3	Dibromomethane	1	0.30	0.24	0.30	1.0	U
95-50-1	1,2-Dichlorobenzene	1	0.16	0.072	0.16	0.50	U
541-73-1	1,3-Dichlorobenzene	1	0.16	0.15	0.16	0.50	U
106-46-7	1,4-Dichlorobenzene	1	0.16	0.062	0.16	0.50	U
75-71-8	Dichlorodifluoromethane	1	0.16	0.099	0.16	0.50	U
75-34-3	1,1-Dichloroethane	1	0.16	0.11	0.16	0.50	U
107-06-2	1,2-Dichloroethane	1	0.20	0.17	0.20	0.50	U
75-35-4	1,1-Dichloroethene	1	0.20	0.18	0.20	0.50	U
156-59-2	cis-1,2-Dichloroethene	1	0.16	0.085	0.16	0.50	U
156-60-5	trans-1,2-Dichloroethene	1	0.16	0.15	0.16	0.50	U
78-87-5	1,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U
142-28-9	1,3-Dichloropropane	1	0.16	0.086	0.16	0.50	U
594-20-7	2,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET

EPA-8260B

M03-17_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-17</u>
Sampled:	<u>02/01/17 12:40</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
563-58-6	1,1-Dichloropropene	1	0.16	0.085	0.16	0.50	U
100-41-4	Ethylbenzene	1	0.16	0.098	0.16	0.50	U
87-68-3	Hexachlorobutadiene	1	0.20	0.17	0.20	0.50	U
98-82-8	Isopropylbenzene	1	0.16	0.14	0.16	0.50	U
99-87-6	p-Isopropyltoluene	1	0.16	0.12	0.16	0.50	U
75-09-2	Methylene chloride	1	0.50	0.48	0.50	1.0	U
1634-04-4	Methyl t-butyl ether	1	0.16	0.11	0.16	0.50	U
91-20-3	Naphthalene	1	0.63	0.36	0.40	0.50	
103-65-1	n-Propylbenzene	1	0.16	0.11	0.16	0.50	U
100-42-5	Styrene	1	0.16	0.068	0.16	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	1	0.20	0.18	0.20	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.20	0.17	0.20	0.50	U
127-18-4	Tetrachloroethene	1	0.16	0.13	0.16	0.50	U
108-88-3	Toluene	1	0.16	0.093	0.16	0.50	U
87-61-6	1,2,3-Trichlorobenzene	1	0.16	0.16	0.16	0.50	U
120-82-1	1,2,4-Trichlorobenzene	1	0.20	0.19	0.20	0.50	U
71-55-6	1,1,1-Trichloroethane	1	0.16	0.11	0.16	0.50	U
79-00-5	1,1,2-Trichloroethane	1	0.16	0.16	0.16	0.50	U
79-01-6	Trichloroethene	1	0.16	0.085	0.16	0.50	U
75-69-4	Trichlorofluoromethane	1	0.16	0.13	0.16	0.50	U
96-18-4	1,2,3-Trichloropropane	1	0.33	0.24	0.33	0.50	U
95-63-6	1,2,4-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
108-67-8	1,3,5-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
75-01-4	Vinyl chloride	1	0.16	0.12	0.16	0.50	U
67-64-1	Acetone	1	5.0	4.6	5.0	10	U
994-05-8	t-Amyl Methyl ether	1	0.30	0.25	0.30	0.50	U
75-65-0	t-Butyl alcohol	1	10	9.4	10	15	U
75-15-0	Carbon disulfide	1	0.40	0.38	0.40	1.0	U
108-20-3	Diisopropyl ether	1	0.30	0.23	0.30	0.50	U
637-92-3	Ethyl t-butyl ether	1	0.20	0.18	0.20	0.50	U
78-93-3	Methyl ethyl ketone	1	3.0	2.5	3.0	10	U
179601-23-1	p- & m-Xylenes	1	0.30	0.28	0.30	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET EPA-8260B

M03-17_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-17</u>
Sampled:	<u>02/01/17 12:40</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
95-47-6	o-Xylene	1	0.16	0.082	0.16	0.50	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	10.300	103	81 - 118	
Toluene-d8 (Surrogate)	10.000	9.6300	96.3	89 - 112	
4-Bromofluorobenzene (Surrogate)	10.000	10.220	102	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	192251	6.58	176929	6.58	
Chlorobenzene-d5 (IS)	63045	9.62	60035	9.62	
1,4-Difluorobenzene (IS)	262128	7.39	251715	7.39	

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET

EPA-8260B

MW-02_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-18</u>
Sampled:	<u>02/01/17 14:05</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
71-43-2	Benzene	1	0.16	0.083	0.16	0.50	U
108-86-1	Bromobenzene	1	0.16	0.13	0.16	0.50	U
74-97-5	Bromochloromethane	1	0.30	0.24	0.30	1.0	U
75-27-4	Bromodichloromethane	1	0.30	0.14	0.30	0.50	U
75-25-2	Bromoform	1	0.30	0.27	0.30	0.60	U
74-83-9	Bromomethane	1	0.25	0.25	0.25	0.60	U
104-51-8	n-Butylbenzene	1	0.16	0.11	0.16	0.50	U
135-98-8	sec-Butylbenzene	1	0.16	0.15	0.16	0.50	U
98-06-6	tert-Butylbenzene	1	0.16	0.13	0.16	0.50	U
56-23-5	Carbon tetrachloride	1	0.20	0.18	0.20	0.50	U
108-90-7	Chlorobenzene	1	0.18	0.093	0.16	0.50	J
75-00-3	Chloroethane	1	0.16	0.14	0.16	0.50	U
67-66-3	Chloroform	1	0.22	0.12	0.16	0.50	J
74-87-3	Chloromethane	1	0.16	0.14	0.16	0.50	U
95-49-8	2-Chlorotoluene	1	0.20	0.20	0.20	0.50	U
106-43-4	4-Chlorotoluene	1	0.16	0.15	0.16	0.50	U
124-48-1	Dibromochloromethane	1	0.16	0.13	0.16	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.50	0.44	0.50	1.0	U
106-93-4	1,2-Dibromoethane	1	0.16	0.16	0.16	0.50	U
74-95-3	Dibromomethane	1	0.30	0.24	0.30	1.0	U
95-50-1	1,2-Dichlorobenzene	1	15	0.072	0.16	0.50	
541-73-1	1,3-Dichlorobenzene	1	0.17	0.15	0.16	0.50	J
106-46-7	1,4-Dichlorobenzene	1	1.2	0.062	0.16	0.50	
75-71-8	Dichlorodifluoromethane	1	0.16	0.099	0.16	0.50	U
75-34-3	1,1-Dichloroethane	1	0.47	0.11	0.16	0.50	J
107-06-2	1,2-Dichloroethane	1	1.3	0.17	0.20	0.50	
75-35-4	1,1-Dichloroethene	1	2.5	0.18	0.20	0.50	
156-59-2	cis-1,2-Dichloroethene	1	18	0.085	0.16	0.50	
156-60-5	trans-1,2-Dichloroethene	1	0.33	0.15	0.16	0.50	J
78-87-5	1,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U
142-28-9	1,3-Dichloropropane	1	0.16	0.086	0.16	0.50	U
594-20-7	2,2-Dichloropropane	1	0.16	0.13	0.16	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET

EPA-8260B

MW-02_170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-18</u>
Sampled:	<u>02/01/17 14:05</u>	Prepared:	<u>02/08/17 07:15</u>
Solids:		Preparation:	<u>EPA 5030 Water MS</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
		Calibration:	<u>1702011</u>
			Instrument: <u>MS-V5</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
563-58-6	1,1-Dichloropropene	1	0.16	0.085	0.16	0.50	U
100-41-4	Ethylbenzene	1	0.16	0.098	0.16	0.50	U
87-68-3	Hexachlorobutadiene	1	0.20	0.17	0.20	0.50	U
98-82-8	Isopropylbenzene	1	0.16	0.14	0.16	0.50	U
99-87-6	p-Isopropyltoluene	1	0.16	0.12	0.16	0.50	U
75-09-2	Methylene chloride	1	0.50	0.48	0.50	1.0	U
1634-04-4	Methyl t-butyl ether	1	0.16	0.11	0.16	0.50	U
91-20-3	Naphthalene	1	0.40	0.36	0.40	0.50	U
103-65-1	n-Propylbenzene	1	0.16	0.11	0.16	0.50	U
100-42-5	Styrene	1	0.16	0.068	0.16	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	1	0.20	0.18	0.20	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.20	0.17	0.20	0.50	U
127-18-4	Tetrachloroethene	1	0.20	0.13	0.16	0.50	J
108-88-3	Toluene	1	0.16	0.093	0.16	0.50	U
87-61-6	1,2,3-Trichlorobenzene	1	0.16	0.16	0.16	0.50	U
120-82-1	1,2,4-Trichlorobenzene	1	0.20	0.19	0.20	0.50	U
71-55-6	1,1,1-Trichloroethane	1	0.16	0.11	0.16	0.50	U
79-00-5	1,1,2-Trichloroethane	1	0.66	0.16	0.16	0.50	
75-69-4	Trichlorofluoromethane	1	0.16	0.13	0.16	0.50	U
96-18-4	1,2,3-Trichloropropane	1	0.33	0.24	0.33	0.50	U
95-63-6	1,2,4-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
108-67-8	1,3,5-Trimethylbenzene	1	0.16	0.12	0.16	0.50	U
75-01-4	Vinyl chloride	1	2.4	0.12	0.16	0.50	
67-64-1	Acetone	1	5.0	4.6	5.0	10	U
994-05-8	t-Amyl Methyl ether	1	0.30	0.25	0.30	0.50	U
75-65-0	t-Butyl alcohol	1	10	9.4	10	15	U
75-15-0	Carbon disulfide	1	0.40	0.38	0.40	1.0	U
108-20-3	Diisopropyl ether	1	0.30	0.23	0.30	0.50	U
637-92-3	Ethyl t-butyl ether	1	0.20	0.18	0.20	0.50	U
78-93-3	Methyl ethyl ketone	1	3.0	2.5	3.0	10	U
179601-23-1	p- & m-Xylenes	1	0.30	0.28	0.30	0.50	U
95-47-6	o-Xylene	1	0.16	0.082	0.16	0.50	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

**ORGANIC ANALYSIS DATA SHEET
EPA-8260B****MW-02_170201**

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Matrix: Water Laboratory ID: 1702918-18 File ID: 08FEB49.D
Sampled: 02/01/17 14:05 Prepared: 02/08/17 07:15 Analyzed: 02/09/17 00:12
Solids: Preparation: EPA 5030 Water MS Initial/Final: 25 ml / 25 ml
Batch: B[B0714 Sequence: 1702156 Calibration: 1702011 Instrument: MS-V5

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	11.140	111	81 - 118	
Toluene-d8 (Surrogate)	10.000	9.8800	98.8	89 - 112	
4-Bromofluorobenzene (Surrogate)	10.000	9.6900	96.9	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	192364	6.58	176929	6.58	
Chlorobenzene-d5 (IS)	69484	9.63	60035	9.62	
1,4-Difluorobenzene (IS)	263196	7.39	251715	7.39	

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET
EPA-8260B

MW-02_170201

Laboratory:	<u>BC Laboratories</u>		SDG:	<u>17-02918</u>		
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>		Project:	<u>Alameda</u>		
Matrix:	<u>Water</u>	Laboratory ID:	<u>1702918-18RE1</u>	File ID:	<u>10FEB10.D</u>	
Sampled:	<u>02/01/17 14:05</u>	Prepared:	<u>02/08/17 07:15</u>	Analyzed:	<u>02/10/17 09:34</u>	
Solids:			Preparation: <u>EPA 5030 Water MS</u>	Initial/Final:	<u>25 ml / 25 ml</u>	
Batch:	<u>B[B0714</u>	Sequence: <u>1702340</u>	Calibration: <u>1702011</u>	Instrument:	<u>MS-V5</u>	

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	DL	LOD	LOQ	Q
79-01-6	Trichloroethene	50	2000	4.2	8.0	25	D

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	10.550	106	81 - 118	
Toluene-d8 (Surrogate)	10.000	10.000	100	89 - 112	
4-Bromofluorobenzene (Surrogate)	10.000	9.4400	94.4	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	167262	6.58	187920	6.58	
Chlorobenzene-d5 (IS)	59257	9.62	66125	9.62	
1,4-Difluorobenzene (IS)	232084	7.39	261715	7.39	

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

PREPARATION BATCH SUMMARY

EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Batch: B[B0714 Batch Matrix: Water Preparation: EPA 5030 Water MS

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
D03-03_170201	1702918-01	08FEB35.D	02/08/17 07:15	Full SAP LIST
DUP15_170201	1702918-02	08FEB36.D	02/08/17 07:15	Full SAP LIST
DUP16_170201	1702918-03	08FEB37.D	02/08/17 07:15	Full SAP LIST
DUP16_170201	1702918-03RE1	09FEB52.D	02/08/17 07:15	Full SAP LIST
DUP16_170201	1702918-03RE2	10FEB08.D	02/08/17 07:15	Full SAP LIST
M03-06_170201	1702918-04	09FEB40.D	02/08/17 07:15	Full SAP LIST
M03-10_170201	1702918-05	08FEB39.D	02/08/17 07:15	Full SAP LIST
M03-18_170201	1702918-06	08FEB59.D	02/08/17 07:15	Full SAP LIST
M03-19_170201	1702918-07	09FEB41.D	02/08/17 07:15	Full SAP LIST
MW360-1_170201	1702918-08	08FEB41.D	02/08/17 07:15	Full SAP LIST
MW360-1_170201	1702918-08RE1	09FEB53.D	02/08/17 07:15	Full SAP LIST
MW360-1_170201	1702918-08RE2	10FEB09.D	02/08/17 07:15	Full SAP LIST
MW630-4_170201	1702918-09	08FEB42.D	02/08/17 07:15	Full SAP LIST
MW630-4_170201	1702918-09RE1	09FEB54.D	02/08/17 07:15	Full SAP LIST
P4-1-MWIB2_170201	1702918-10	08FEB26.D	02/08/17 07:15	Full SAP LIST
P4-1-MWIB2_170201	1702918-10RE1	10FEB11.D	02/08/17 07:15	Full SAP LIST
P-4-1-MWS6_170201	1702918-11	08FEB43.D	02/08/17 07:15	Full SAP LIST
S4-TT-MW01_170201	1702918-12	08FEB44.D	02/08/17 07:15	Full SAP LIST
372-MW1_170201	1702918-13	08FEB45.D	02/08/17 07:15	Full SAP LIST
EB15_170201	1702918-14	08FEB46.D	02/08/17 07:15	Full SAP LIST
EB16_170201	1702918-15	08FEB47.D	02/08/17 07:15	Full SAP LIST
M03-05_170201	1702918-16	08FEB48.D	02/08/17 07:15	Full SAP LIST
M03-17_170201	1702918-17	08FEB60.D	02/08/17 07:15	Full SAP LIST
MW-02_170201	1702918-18	08FEB49.D	02/08/17 07:15	Full SAP LIST
MW-02_170201	1702918-18RE1	10FEB10.D	02/08/17 07:15	Full SAP LIST
Blank	B[B0714-BLK1	08FEB16.D	02/08/17 07:15	
LCS	B[B0714-BS1	08FEB27.D	02/08/17 07:15	



AMEC Environmental & Infrastructure
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Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

PREPARATION BATCH SUMMARY**EPA-8260B**

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Batch: B[B0714 Batch Matrix: Water Preparation: EPA 5030 Water MS

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
P4-1-MWIB2_170201	B[B0714-MS1	08FEB28.D	02/08/17 07:15	
P4-1-MWIB2_170201	B[B0714-MSD1	08FEB29.D	02/08/17 07:15	



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

METHOD BLANK DATA SHEET EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>B[B0714-BLK1]</u>
Prepared:	<u>02/08/17 07:15</u>	Preparation:	<u>EPA 5030 Water MS</u>
Analyzed:	<u>02/08/17 11:25</u>	Instrument:	<u>MS-V5</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
			Calibration: <u>1702011</u>

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
71-43-2	Benzene	0.16	0.083	0.16	0.50	U
108-86-1	Bromobenzene	0.16	0.13	0.16	0.50	U
74-97-5	Bromochloromethane	0.30	0.24	0.30	1.0	U
75-27-4	Bromodichloromethane	0.30	0.14	0.30	0.50	U
75-25-2	Bromoform	0.30	0.27	0.30	0.60	U
74-83-9	Bromomethane	0.25	0.25	0.25	0.60	U
104-51-8	n-Butylbenzene	0.16	0.11	0.16	0.50	U
135-98-8	sec-Butylbenzene	0.16	0.15	0.16	0.50	U
98-06-6	tert-Butylbenzene	0.16	0.13	0.16	0.50	U
56-23-5	Carbon tetrachloride	0.20	0.18	0.20	0.50	U
108-90-7	Chlorobenzene	0.16	0.093	0.16	0.50	U
75-00-3	Chloroethane	0.16	0.14	0.16	0.50	U
67-66-3	Chloroform	0.16	0.12	0.16	0.50	U
74-87-3	Chloromethane	0.16	0.14	0.16	0.50	U
95-49-8	2-Chlorotoluene	0.20	0.20	0.20	0.50	U
106-43-4	4-Chlorotoluene	0.16	0.15	0.16	0.50	U
124-48-1	Dibromochloromethane	0.16	0.13	0.16	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	0.44	0.50	1.0	U
106-93-4	1,2-Dibromoethane	0.16	0.16	0.16	0.50	U
74-95-3	Dibromomethane	0.30	0.24	0.30	1.0	U
95-50-1	1,2-Dichlorobenzene	0.16	0.072	0.16	0.50	U
541-73-1	1,3-Dichlorobenzene	0.16	0.15	0.16	0.50	U
106-46-7	1,4-Dichlorobenzene	0.16	0.062	0.16	0.50	U
75-71-8	Dichlorodifluoromethane	0.16	0.099	0.16	0.50	U



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San Diego, CA 92123

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Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

METHOD BLANK DATA SHEET EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>B[B0714-BLK1]</u>
Prepared:	<u>02/08/17 07:15</u>	Preparation:	<u>EPA 5030 Water MS</u>
Analyzed:	<u>02/08/17 11:25</u>	Instrument:	<u>MS-V5</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
			Calibration: <u>1702011</u>

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
75-34-3	1,1-Dichloroethane	0.16	0.11	0.16	0.50	U
107-06-2	1,2-Dichloroethane	0.20	0.17	0.20	0.50	U
75-35-4	1,1-Dichloroethene	0.20	0.18	0.20	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.16	0.085	0.16	0.50	U
156-60-5	trans-1,2-Dichloroethene	0.16	0.15	0.16	0.50	U
78-87-5	1,2-Dichloropropane	0.16	0.13	0.16	0.50	U
142-28-9	1,3-Dichloropropane	0.16	0.086	0.16	0.50	U
594-20-7	2,2-Dichloropropane	0.16	0.13	0.16	0.50	U
563-58-6	1,1-Dichloropropene	0.16	0.085	0.16	0.50	U
100-41-4	Ethylbenzene	0.16	0.098	0.16	0.50	U
87-68-3	Hexachlorobutadiene	0.20	0.17	0.20	0.50	U
98-82-8	Isopropylbenzene	0.16	0.14	0.16	0.50	U
99-87-6	p-Isopropyltoluene	0.16	0.12	0.16	0.50	U
75-09-2	Methylene chloride	0.50	0.48	0.50	1.0	U
1634-04-4	Methyl t-butyl ether	0.16	0.11	0.16	0.50	U
91-20-3	Naphthalene	0.40	0.36	0.40	0.50	U
103-65-1	n-Propylbenzene	0.16	0.11	0.16	0.50	U
100-42-5	Styrene	0.16	0.068	0.16	0.50	U
630-20-6	1,1,1,2-Tetrachloroethane	0.20	0.18	0.20	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.20	0.17	0.20	0.50	U
127-18-4	Tetrachloroethene	0.16	0.13	0.16	0.50	U
108-88-3	Toluene	0.16	0.093	0.16	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.16	0.16	0.16	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.20	0.19	0.20	0.50	U



AMEC Environmental & Infrastructure
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Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

METHOD BLANK DATA SHEET EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>	Laboratory ID:	<u>B[B0714-BLK1</u>
Prepared:	<u>02/08/17 07:15</u>	Preparation:	<u>EPA 5030 Water MS</u>
Analyzed:	<u>02/08/17 11:25</u>	Instrument:	<u>MS-V5</u>
Batch:	<u>B[B0714</u>	Sequence:	<u>1702156</u>
			Calibration: <u>1702011</u>

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
71-55-6	1,1,1-Trichloroethane	0.16	0.11	0.16	0.50	U
79-00-5	1,1,2-Trichloroethane	0.16	0.16	0.16	0.50	U
79-01-6	Trichloroethene	0.16	0.085	0.16	0.50	U
75-69-4	Trichlorofluoromethane	0.16	0.13	0.16	0.50	U
96-18-4	1,2,3-Trichloropropane	0.33	0.24	0.33	0.50	U
95-63-6	1,2,4-Trimethylbenzene	0.16	0.12	0.16	0.50	U
108-67-8	1,3,5-Trimethylbenzene	0.16	0.12	0.16	0.50	U
75-01-4	Vinyl chloride	0.16	0.12	0.16	0.50	U
67-64-1	Acetone	5.0	4.6	5.0	10	U
994-05-8	t-Amyl Methyl ether	0.30	0.25	0.30	0.50	U
75-65-0	t-Butyl alcohol	10	9.4	10	15	U
75-15-0	Carbon disulfide	0.40	0.38	0.40	1.0	U
108-20-3	Diisopropyl ether	0.30	0.23	0.30	0.50	U
637-92-3	Ethyl t-butyl ether	0.20	0.18	0.20	0.50	U
78-93-3	Methyl ethyl ketone	3.0	2.5	3.0	10	U
179601-23-1	p- & m-Xylenes	0.30	0.28	0.30	0.50	U
95-47-6	o-Xylene	0.16	0.082	0.16	0.50	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,2-Dichloroethane-d4 (Surrogate)	10.000	10.350	104	81 - 118	
Toluene-d8 (Surrogate)	10.000	9.9600	99.6	89 - 112	
4-Bromofluorobenzene (Surrogate)	10.000	9.4100	94.1	85 - 114	

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Pentafluorobenzene (IS)	197055	6.58	190650	6.58	



AMEC Environmental & Infrastructure
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Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

METHOD BLANK DATA SHEET EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Matrix: Water Laboratory ID: B[B0714-BLK1 File ID: 08FEB16.D
Prepared: 02/08/17 07:15 Preparation: EPA 5030 Water MS Initial/Final: 25 ml / 25 ml
Analyzed: 02/08/17 11:25 Instrument: MS-V5
Batch: B[B0714 Sequence: 1702156 Calibration: 1702011

INTERNAL STANDARD	AREA	RT	REF AREA	REF RT	Q
Chlorobenzene-d5 (IS)	67275	9.63	66125	9.63	
1,4-Difluorobenzene (IS)	268062	7.39	266176	7.39	



AMEC Environmental & Infrastructure
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Reported: 3/6/2017 4:25:23PM
Project: Alameda
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Project Manager: Kelli Miller

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA-8260B

P4-1-MWIB2 170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>		
Batch:	<u>B[B0714</u>	Laboratory ID:	<u>B[B0714-MS1</u>
Preparation:	<u>EPA 5030 Water MS</u>	Initial/Final:	<u>25 ml / 25 ml</u>
Source Sample Number: <u>1702918-10</u>			

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC. #	QC LIMITS REC.
Benzene	25.000	0.16000	23.780	94.5	79 - 120
Bromobenzene	25.000	ND	25.460	102	80 - 120
Bromochloromethane	25.000	ND	23.520	94.1	78 - 123
Bromodichloromethane	25.000	ND	25.850	103	79 - 125
Bromoform	25.000	ND	23.200	92.8	66 - 130
Bromomethane	25.000	ND	17.830	71.3	53 - 141
n-Butylbenzene	25.000	ND	25.470	102	75 - 128
sec-Butylbenzene	25.000	ND	24.110	96.4	77 - 126
tert-Butylbenzene	25.000	ND	24.460	97.8	78 - 124
Carbon tetrachloride	25.000	ND	26.760	107	72 - 136
Chlorobenzene	25.000	1.3800	26.020	98.6	82 - 118
Chloroethane	25.000	ND	24.980	99.9	60 - 138
Chloroform	25.000	ND	24.520	98.1	79 - 124
Chloromethane	25.000	ND	26.680	107	50 - 139
2-Chlorotoluene	25.000	ND	24.920	99.7	79 - 122
4-Chlorotoluene	25.000	ND	24.130	96.5	78 - 122
Dibromochloromethane	25.000	ND	25.680	103	74 - 126
1,2-Dibromo-3-chloropropane	25.000	ND	23.510	94.0	62 - 128
1,2-Dibromoethane	25.000	ND	26.160	105	77 - 121
Dibromomethane	25.000	ND	23.590	94.4	79 - 123
1,2-Dichlorobenzene	25.000	23.510	44.230	82.9	80 - 119
1,3-Dichlorobenzene	25.000	0.73000	23.070	89.4	80 - 119
1,4-Dichlorobenzene	25.000	6.0900	29.080	92.0	79 - 118
Dichlorodifluoromethane	25.000	ND	22.710	90.8	32 - 152
1,1-Dichloroethane	25.000	2.2500	25.770	94.1	77 - 125



AMEC Environmental & Infrastructure
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Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA-8260B

P4-1-MWIB2 170201

Laboratory: BC Laboratories SDG: 17-02918
 Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
 Matrix: Water
 Batch: B[B0714 Laboratory ID: B[B0714-MS1
 Preparation: EPA 5030 Water MS Initial/Final: 25 ml / 25 ml
 Source Sample Number: 1702918-10

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC. #	QC LIMITS REC.
1,2-Dichloroethane	25.000	0.38000	24.370	96.0	73 - 128
1,1-Dichloroethene	25.000	10.010	34.220	96.8	71 - 131
cis-1,2-Dichloroethene	25.000	485.38	489.41	16.1 *	78 - 123
trans-1,2-Dichloroethene	25.000	42.450	64.410	87.8	75 - 124
1,2-Dichloropropane	25.000	ND	23.250	93.0	78 - 122
1,3-Dichloropropane	25.000	ND	24.430	97.7	80 - 119
2,2-Dichloropropane	25.000	ND	19.470	77.9	60 - 139
1,1-Dichloropropene	25.000	ND	25.570	102	79 - 125
cis-1,3-Dichloropropene	25.000	ND	24.160	96.6	75 - 124
trans-1,3-Dichloropropene	25.000	ND	24.610	98.4	73 - 127
Ethylbenzene	25.000	ND	25.880	104	79 - 121
Hexachlorobutadiene	25.000	ND	26.390	106	66 - 134
Isopropylbenzene	25.000	ND	24.360	97.4	72 - 131
p-Isopropyltoluene	25.000	ND	24.530	98.1	77 - 127
Methylene chloride	25.000	ND	23.800	95.2	74 - 124
Methyl t-butyl ether	25.000	ND	23.220	92.9	71 - 124
Naphthalene	25.000	ND	27.420	110	61 - 128
n-Propylbenzene	25.000	ND	24.050	96.2	76 - 126
Styrene	25.000	ND	25.180	101	78 - 123
1,1,1,2-Tetrachloroethane	25.000	ND	23.900	95.6	78 - 124
1,1,2,2-Tetrachloroethane	25.000	ND	24.500	98.0	71 - 121
Tetrachloroethene	25.000	0.24000	30.090	119	74 - 129
Toluene	25.000	0.11000	25.700	102	80 - 121
1,2,3-Trichlorobenzene	25.000	ND	27.610	110	69 - 129
1,2,4-Trichlorobenzene	25.000	ND	27.300	109	69 - 130



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA-8260B

P4-1-MWIB2 170201

Laboratory: BC Laboratories SDG: 17-02918
 Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
 Matrix: Water
 Batch: B[B0714 Laboratory ID: B[B0714-MS1
 Preparation: EPA 5030 Water MS Initial/Final: 25 ml / 25 ml
 Source Sample Number: 1702918-10

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC. #	QC LIMITS REC.
1,1,1-Trichloroethane	25.000	ND	26.950	108	74 - 131
1,1,2-Trichloroethane	25.000	ND	24.780	99.1	80 - 119
Trichloroethene	25.000	397.52	391.20	-25.3 *	79 - 123
Trichlorofluoromethane	25.000	ND	27.200	109	65 - 141
1,2,3-Trichloropropane	25.000	ND	23.840	95.4	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.000	ND	25.260	101	70 - 136
1,2,4-Trimethylbenzene	25.000	ND	24.470	97.9	76 - 124
1,3,5-Trimethylbenzene	25.000	ND	23.830	95.3	75 - 124
Vinyl chloride	25.000	166.26	185.56	77.2	58 - 137
Total Xylenes	75.000	ND	75.920	101	79 - 121
Acetone	320.00	ND	288.69	90.2	39 - 160
Acetonitrile	160.00	ND	200.66	125	50 - 142
Allyl chloride	32.000	ND	31.430	98.2	68 - 130
t-Amyl Methyl ether	16.000	ND	15.320	95.8	68 - 128
Benzyl chloride	32.000	ND	30.170	94.3	42 - 138
t-Butyl alcohol	800.00	ND	844.36	106	68 - 129
Carbon disulfide	32.000	ND	32.890	103	64 - 133
Chloroprene	32.000	ND	33.460	105	65 - 135
Diisopropyl ether	16.000	0.42000	18.130	111	67 - 128
Ethyl t-butyl ether	16.000	ND	15.690	98.1	70 - 127
2-Hexanone	320.00	ND	306.86	95.9	57 - 139
Methyl ethyl ketone	160.00	ND	97.290	60.8	56 - 143
Methyl isobutyl ketone	160.00	ND	151.18	94.5	67 - 130
Vinyl acetate	160.00	ND	149.19	93.2	54 - 146



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA-8260B

P4-1-MWIB2 170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>		
Batch:	<u>B[B0714</u>	Laboratory ID:	<u>B[B0714-MSD1</u>
Preparation:	<u>EPA 5030 Water MS</u>	Initial/Final:	<u>25 ml / 25 ml</u>
Source Sample Number:	<u>1702918-10</u>		

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
Benzene	25.000	24.690	98.1	3.75	30	79 - 120
Bromobenzene	25.000	25.550	102	0.353	30	80 - 120
Bromochloromethane	25.000	22.050	88.2	6.45	30	78 - 123
Bromodichloromethane	25.000	25.120	100	2.86	30	79 - 125
Bromoform	25.000	21.870	87.5	5.90	30	66 - 130
Bromomethane	25.000	17.160	68.6	3.83	30	53 - 141
n-Butylbenzene	25.000	24.940	99.8	2.10	30	75 - 128
sec-Butylbenzene	25.000	23.250	93.0	3.63	30	77 - 126
tert-Butylbenzene	25.000	23.020	92.1	6.07	30	78 - 124
Carbon tetrachloride	25.000	25.930	104	3.15	30	72 - 136
Chlorobenzene	25.000	26.100	98.9	0.307	30	82 - 118
Chloroethane	25.000	25.660	103	2.69	30	60 - 138
Chloroform	25.000	25.060	100	2.18	30	79 - 124
Chloromethane	25.000	24.820	99.3	7.22	30	50 - 139
2-Chlorotoluene	25.000	24.050	96.2	3.55	30	79 - 122
4-Chlorotoluene	25.000	23.740	95.0	1.63	30	78 - 122
Dibromochloromethane	25.000	25.290	101	1.53	30	74 - 126
1,2-Dibromo-3-chloropropane	25.000	23.140	92.6	1.59	30	62 - 128
1,2-Dibromoethane	25.000	26.240	105	0.305	30	77 - 121
Dibromomethane	25.000	22.960	91.8	2.71	30	79 - 123
1,2-Dichlorobenzene	25.000	43.400	79.6 *	1.89	30	80 - 119
1,3-Dichlorobenzene	25.000	22.190	85.8	3.89	30	80 - 119
1,4-Dichlorobenzene	25.000	28.450	89.4	2.19	30	79 - 118
Dichlorodifluoromethane	25.000	21.940	87.8	3.45	30	32 - 152
1,1-Dichloroethane	25.000	25.010	91.0	2.99	30	77 - 125
1,2-Dichloroethane	25.000	23.680	93.2	2.87	30	73 - 128



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA-8260B

P4-1-MWIB2 170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>		
Batch:	<u>B[B0714</u>	Laboratory ID:	<u>B[B0714-MSD1</u>
Preparation:	<u>EPA 5030 Water MS</u>	Initial/Final:	<u>25 ml / 25 ml</u>
Source Sample Number:	<u>1702918-10</u>		

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
1,1-Dichloroethene	25.000	33.470	93.8	2.22	30	71 - 131
cis-1,2-Dichloroethene	25.000	470.25	-60.5 *	3.99	30	78 - 123
trans-1,2-Dichloroethene	25.000	64.480	88.1	0.109	30	75 - 124
1,2-Dichloropropane	25.000	24.370	97.5	4.70	30	78 - 122
1,3-Dichloropropane	25.000	24.930	99.7	2.03	30	80 - 119
2,2-Dichloropropane	25.000	18.570	74.3	4.73	30	60 - 139
1,1-Dichloropropene	25.000	25.440	102	0.510	30	79 - 125
cis-1,3-Dichloropropene	25.000	24.580	98.3	1.72	30	75 - 124
trans-1,3-Dichloropropene	25.000	24.100	96.4	2.09	30	73 - 127
Ethylbenzene	25.000	25.080	100	3.14	30	79 - 121
Hexachlorobutadiene	25.000	26.360	105	0.114	30	66 - 134
Isopropylbenzene	25.000	24.080	96.3	1.16	30	72 - 131
p-Isopropyltoluene	25.000	23.520	94.1	4.20	30	77 - 127
Methylene chloride	25.000	23.220	92.9	2.47	30	74 - 124
Methyl t-butyl ether	25.000	23.880	95.5	2.80	30	71 - 124
Naphthalene	25.000	28.130	113	2.56	30	61 - 128
n-Propylbenzene	25.000	22.910	91.6	4.86	30	76 - 126
Styrene	25.000	24.790	99.2	1.56	30	78 - 123
1,1,1,2-Tetrachloroethane	25.000	23.910	95.6	0.0418	30	78 - 124
1,1,2,2-Tetrachloroethane	25.000	24.370	97.5	0.532	30	71 - 121
Tetrachloroethene	25.000	30.890	123	2.62	30	74 - 129
Toluene	25.000	26.490	106	3.03	30	80 - 121
1,2,3-Trichlorobenzene	25.000	27.330	109	1.02	30	69 - 129
1,2,4-Trichlorobenzene	25.000	27.340	109	0.146	30	69 - 130
1,1,1-Trichloroethane	25.000	26.090	104	3.24	30	74 - 131
1,1,2-Trichloroethane	25.000	25.890	104	4.38	30	80 - 119



AMEC Environmental & Infrastructure
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San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA-8260B

P4-1-MWIB2 170201

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>		
Batch:	<u>B[B0714</u>	Laboratory ID:	<u>B[B0714-MSD1</u>
Preparation:	<u>EPA 5030 Water MS</u>	Initial/Final:	<u>25 ml / 25 ml</u>
Source Sample Number:	<u>1702918-10</u>		

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC. #	% RPD #	QC LIMITS	
					RPD	REC.
Trichloroethene	25.000	379.67	-71.4 *	2.99	30	79 - 123
Trichlorofluoromethane	25.000	26.560	106	2.38	30	65 - 141
1,2,3-Trichloropropane	25.000	25.770	103	7.78	30	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.000	25.170	101	0.357	30	70 - 136
1,2,4-Trimethylbenzene	25.000	22.980	91.9	6.28	30	76 - 124
1,3,5-Trimethylbenzene	25.000	22.440	89.8	6.01	30	75 - 124
Vinyl chloride	25.000	177.19	43.7 *	4.61	30	58 - 137
Total Xylenes	75.000	74.980	100	1.25	30	79 - 121
Acetone	320.00	296.41	92.6	2.64	30	39 - 160
Acetonitrile	160.00	221.71	139	9.97	30	50 - 142
Allyl chloride	32.000	31.540	98.6	0.349	30	68 - 130
t-Amyl Methyl ether	16.000	16.040	100	4.59	30	68 - 128
Benzyl chloride	32.000	30.960	96.8	2.58	30	42 - 138
t-Butyl alcohol	800.00	885.20	111	4.72	30	68 - 129
Carbon disulfide	32.000	32.820	103	0.213	30	64 - 133
Chloroprene	32.000	32.870	103	1.78	30	65 - 135
Diisopropyl ether	16.000	17.340	106	4.45	30	67 - 128
Ethyl t-butyl ether	16.000	15.790	98.7	0.635	30	70 - 127
2-Hexanone	320.00	323.05	101	5.14	30	57 - 139
Methyl ethyl ketone	160.00	93.100	58.2	4.40	30	56 - 143
Methyl isobutyl ketone	160.00	153.91	96.2	1.79	30	67 - 130
Vinyl acetate	160.00	145.99	91.2	2.17	30	54 - 146

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

LCS RECOVERY

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>		
Batch:	<u>B[B0714</u>	Laboratory ID:	<u>B[B0714-BS1</u>
Preparation:	<u>EPA 5030 Water MS</u>	Initial/Final:	<u>25 ml / 25 ml</u>

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
Benzene	25.000	25.410	102	79 - 120
Bromobenzene	25.000	25.550	102	80 - 120
Bromochloromethane	25.000	24.090	96.4	78 - 123
Bromodichloromethane	25.000	24.920	99.7	79 - 125
Bromoform	25.000	22.650	90.6	66 - 130
Bromomethane	25.000	18.960	75.8	53 - 141
n-Butylbenzene	25.000	26.250	105	75 - 128
sec-Butylbenzene	25.000	24.820	99.3	77 - 126
tert-Butylbenzene	25.000	25.410	102	78 - 124
Carbon tetrachloride	25.000	28.820	115	72 - 136
Chlorobenzene	25.000	24.790	99.2	82 - 118
Chloroethane	25.000	25.510	102	60 - 138
Chloroform	25.000	24.980	99.9	79 - 124
Chloromethane	25.000	26.340	105	50 - 139
2-Chlorotoluene	25.000	25.930	104	79 - 122
4-Chlorotoluene	25.000	24.910	99.6	78 - 122
Dibromochloromethane	25.000	24.720	98.9	74 - 126
1,2-Dibromo-3-chloropropane	25.000	23.030	92.1	62 - 128
1,2-Dibromoethane	25.000	23.530	94.1	77 - 121
Dibromomethane	25.000	20.810	83.2	79 - 123
1,2-Dichlorobenzene	25.000	22.890	91.6	80 - 119
1,3-Dichlorobenzene	25.000	22.540	90.2	80 - 119
1,4-Dichlorobenzene	25.000	24.580	98.3	79 - 118
Dichlorodifluoromethane	25.000	25.970	104	32 - 152



AMEC Environmental & Infrastructure
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Project Manager: Kelli Miller

LCS RECOVERY

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>		
Batch:	<u>B[B0714</u>	Laboratory ID:	<u>B[B0714-BS1</u>
Preparation:	<u>EPA 5030 Water MS</u>	Initial/Final:	<u>25 ml / 25 ml</u>

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
1,1-Dichloroethane	25.000	23.480	93.9	77 - 125
1,2-Dichloroethane	25.000	24.530	98.1	73 - 128
1,1-Dichloroethene	25.000	26.870	107	71 - 131
cis-1,2-Dichloroethene	25.000	27.270	109	78 - 123
trans-1,2-Dichloroethene	25.000	25.700	103	75 - 124
1,2-Dichloropropane	25.000	23.930	95.7	78 - 122
1,3-Dichloropropane	25.000	23.110	92.4	80 - 119
2,2-Dichloropropane	25.000	28.530	114	60 - 139
1,1-Dichloropropene	25.000	27.500	110	79 - 125
cis-1,3-Dichloropropene	25.000	24.030	96.1	75 - 124
trans-1,3-Dichloropropene	25.000	24.240	97.0	73 - 127
Ethylbenzene	25.000	26.060	104	79 - 121
Hexachlorobutadiene	25.000	29.220	117	66 - 134
Isopropylbenzene	25.000	25.390	102	72 - 131
p-Isopropyltoluene	25.000	25.140	101	77 - 127
Methylene chloride	25.000	24.030	96.1	74 - 124
Methyl t-butyl ether	25.000	22.690	90.8	71 - 124
Naphthalene	25.000	24.710	98.8	61 - 128
n-Propylbenzene	25.000	25.040	100	76 - 126
Styrene	25.000	25.720	103	78 - 123
1,1,1,2-Tetrachloroethane	25.000	24.450	97.8	78 - 124
1,1,2,2-Tetrachloroethane	25.000	23.210	92.8	71 - 121
Tetrachloroethene	25.000	32.780	131 *	74 - 129
Toluene	25.000	25.650	103	80 - 121



AMEC Environmental & Infrastructure
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Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

LCS RECOVERY

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>		
Batch:	<u>B[B0714</u>	Laboratory ID:	<u>B[B0714-BS1</u>
Preparation:	<u>EPA 5030 Water MS</u>	Initial/Final:	<u>25 ml / 25 ml</u>

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
1,2,3-Trichlorobenzene	25.000	26.300	105	69 - 129
1,2,4-Trichlorobenzene	25.000	26.880	108	69 - 130
1,1,1-Trichloroethane	25.000	27.310	109	74 - 131
1,1,2-Trichloroethane	25.000	23.460	93.8	80 - 119
Trichloroethene	25.000	29.250	117	79 - 123
Trichlorofluoromethane	25.000	28.120	112	65 - 141
1,2,3-Trichloropropane	25.000	25.250	101	73 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.000	26.600	106	70 - 136
1,2,4-Trimethylbenzene	25.000	25.760	103	76 - 124
1,3,5-Trimethylbenzene	25.000	24.290	97.2	75 - 124
Vinyl chloride	25.000	27.910	112	58 - 137
Total Xylenes	75.000	78.740	105	79 - 121
Acetone	320.00	267.25	83.5	39 - 160
Acetonitrile	160.00	183.91	115	50 - 142
Allyl chloride	32.000	33.390	104	68 - 130
t-Amyl Methyl ether	16.000	15.120	94.5	68 - 128
Benzyl chloride	32.000	29.180	91.2	42 - 138
t-Butyl alcohol	800.00	719.71	90.0	68 - 129
Carbon disulfide	32.000	35.440	111	64 - 133
Chloroprene	32.000	33.700	105	65 - 135
Diisopropyl ether	16.000	17.030	106	67 - 128
Ethyl t-butyl ether	16.000	14.890	93.1	70 - 127
2-Hexanone	320.00	262.36	82.0	57 - 139
Methyl ethyl ketone	160.00	130.76	81.7	56 - 143



AMEC Environmental & Infrastructure
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San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

LCS RECOVERY
EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Matrix: Water
Batch: B[B0714 Laboratory ID: B[B0714-BS1
Preparation: EPA 5030 Water MS Initial/Final: 25 ml / 25 ml

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC. #	QC LIMITS REC.
Methyl isobutyl ketone	160.00	135.03	84.4	67 - 130
Vinyl acetate	160.00	133.33	83.3	54 - 146

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ANALYSIS BATCH (SEQUENCE) SUMMARY EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Sequence: 1702048 Instrument: MS-V5
Matrix: Water Calibration: 1702011

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	1702048-TUN1	26JAN03.D	01/26/17 12:01
Cal Standard	1702048-CAL1	26JAN06.D	01/26/17 16:07
Cal Standard	1702048-CAL2	26JAN07.D	01/26/17 16:30
Cal Standard	1702048-CAL3	26JAN08.D	01/26/17 16:53
Cal Standard	1702048-CAL5	26JAN10.D	01/26/17 17:39
Cal Standard	1702048-CAL6	26JAN11.D	01/26/17 18:02
Cal Standard	1702048-CAL4	26JAN14.D	01/26/17 19:12
MS Tune	1702048-TUN2	07FEB05.D	02/07/17 08:42
Cal Standard	1702048-CAL7	07FEB07.D	02/07/17 09:30
Cal Standard	1702048-CAL8	07FEB08.D	02/07/17 09:53
Cal Standard	1702048-CAL9	07FEB09.D	02/07/17 10:17
Cal Standard	1702048-CALA	07FEB10.D	02/07/17 10:40
Cal Standard	1702048-CALB	07FEB11.D	02/07/17 11:03
Cal Standard	1702048-CALC	07FEB12.D	02/07/17 11:27
MS Tune	1702048-TUN3	13DEC05.D	12/13/16 09:45
Cal Standard	1702048-CALD	13DEC06.D	12/13/16 10:10
Cal Standard	1702048-CALE	13DEC07.D	12/13/16 10:32
Cal Standard	1702048-CALF	13DEC08.D	12/13/16 10:55
Cal Standard	1702048-CALG	13DEC09.D	12/13/16 11:18
Cal Standard	1702048-CALH	13DEC10.D	12/13/16 11:41
Cal Standard	1702048-CALI	13DEC11.D	12/13/16 12:04



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ANALYSIS BATCH (SEQUENCE) SUMMARY EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Sequence: 1702156 Instrument: MS-V5
Matrix: Water Calibration: 1702011

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check	1702156-ICV1	26JAN15.D	01/26/17 19:35
Initial Cal Blank	1702156-ICB1	26JAN17.D	01/26/17 20:23
Initial Cal Check	1702156-ICV2	07FEB15.D	02/07/17 12:46
Initial Cal Blank	1702156-ICB2	07FEB17.D	02/07/17 13:33
MS Tune	1702156-TUN1	08FEB01.D	02/08/17 05:22
Calibration Check	1702156-CCV1	08FEB02.D	02/08/17 05:47
Calibration Check	1702156-CCV2	08FEB03.D	02/08/17 06:11
Calibration Blank	1702156-CCB1	08FEB05.D	02/08/17 06:58
Blank	B[B0714-BLK1	08FEB16.D	02/08/17 11:25
P4-1-MWIB2_170201	1702918-10	08FEB26.D	02/08/17 15:17
LCS	B[B0714-BS1	08FEB27.D	02/08/17 15:40
P4-1-MWIB2_170201	B[B0714-MS1	08FEB28.D	02/08/17 16:03
P4-1-MWIB2_170201	B[B0714-MSD1	08FEB29.D	02/08/17 16:26
MS Tune	1702156-TUN2	08FEB31.D	02/08/17 17:13
Calibration Check	1702156-CCV3	08FEB32.D	02/08/17 17:36
Calibration Check	1702156-CCV4	08FEB33.D	02/08/17 17:59
Calibration Blank	1702156-CCB2	08FEB34.D	02/08/17 18:22
D03-03_170201	1702918-01	08FEB35.D	02/08/17 18:45
DUP15_170201	1702918-02	08FEB36.D	02/08/17 19:08
DUP16_170201	1702918-03	08FEB37.D	02/08/17 19:31
M03-10_170201	1702918-05	08FEB39.D	02/08/17 20:18
MW360-1_170201	1702918-08	08FEB41.D	02/08/17 21:05
MW630-4_170201	1702918-09	08FEB42.D	02/08/17 21:28
P-4-1-MWS6_170201	1702918-11	08FEB43.D	02/08/17 21:52
S4-TT-MW01_170201	1702918-12	08FEB44.D	02/08/17 22:15
372-MW1_170201	1702918-13	08FEB45.D	02/08/17 22:38



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ANALYSIS BATCH (SEQUENCE) SUMMARY EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Sequence: 1702156 Instrument: MS-V5
Matrix: Water Calibration: 1702011

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
EB15_170201	1702918-14	08FEB46.D	02/08/17 23:02
EB16_170201	1702918-15	08FEB47.D	02/08/17 23:25
M03-05_170201	1702918-16	08FEB48.D	02/08/17 23:49
MW-02_170201	1702918-18	08FEB49.D	02/09/17 00:12
M03-18_170201	1702918-06	08FEB59.D	02/09/17 04:04
M03-17_170201	1702918-17	08FEB60.D	02/09/17 04:27
MS Tune	1702156-TUN3	09FEB01.D	02/09/17 04:51
Calibration Check	1702156-CCV5	09FEB02.D	02/09/17 05:14
Calibration Check	1702156-CCV6	09FEB03.D	02/09/17 05:37
Calibration Blank	1702156-CCB3	09FEB04.D	02/09/17 06:12



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San Diego, CA 92123

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Project Number: 5023146096
Project Manager: Kelli Miller

ANALYSIS BATCH (SEQUENCE) SUMMARY EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Sequence: 1702254 Instrument: MS-V5
Matrix: Water Calibration: 1702011

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check	1702254-ICV1	26JAN15.D	01/26/17 19:35
Initial Cal Check	1702254-ICV2	07FEB15.D	02/07/17 12:46
Initial Cal Blank	1702254-ICB2	07FEB17.D	02/07/17 13:33
Calibration Blank	1702254-CCB1	09FEB08.D	02/09/17 07:51
MS Tune	1702254-TUN2	09FEB35.D	02/09/17 18:28
Calibration Check	1702254-CCV3	09FEB36.D	02/09/17 18:51
Calibration Check	1702254-CCV4	09FEB37.D	02/09/17 19:14
Calibration Blank	1702254-CCB2	09FEB38.D	02/09/17 19:37
M03-06_170201	1702918-04	09FEB40.D	02/09/17 20:23
M03-19_170201	1702918-07	09FEB41.D	02/09/17 20:47
DUP16_170201	1702918-03RE1	09FEB52.D	02/10/17 01:02
MW360-1_170201	1702918-08RE1	09FEB53.D	02/10/17 01:25
MW630-4_170201	1702918-09RE1	09FEB54.D	02/10/17 01:48
MS Tune	1702254-TUN3	10FEB01.D	02/10/17 06:04
Calibration Check	1702254-CCV5	10FEB02.D	02/10/17 06:27
Calibration Check	1702254-CCV6	10FEB03.D	02/10/17 06:50
Calibration Blank	1702254-CCB3	10FEB04.D	02/10/17 07:14



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ANALYSIS BATCH (SEQUENCE) SUMMARY EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Sequence: 1702340 Instrument: MS-V5
Matrix: Water Calibration: 1702011

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check	1702340-ICV1	26JAN15.D	01/26/17 19:35
Initial Cal Blank	1702340-ICB1	26JAN17.D	01/26/17 20:23
Initial Cal Check	1702340-ICV2	07FEB15.D	02/07/17 12:46
Initial Cal Blank	1702340-ICB2	07FEB17.D	02/07/17 13:33
MS Tune	1702340-TUN1	10FEB01.D	02/10/17 06:04
Calibration Check	1702340-CCV1	10FEB02.D	02/10/17 06:27
Calibration Check	1702340-CCV2	10FEB03.D	02/10/17 06:50
Calibration Blank	1702340-CCB1	10FEB04.D	02/10/17 07:14
DUP16_170201	1702918-03RE2	10FEB08.D	02/10/17 08:47
MW360-1_170201	1702918-08RE2	10FEB09.D	02/10/17 09:10
MW-02_170201	1702918-18RE1	10FEB10.D	02/10/17 09:34
P4-1-MWIB2_170201	1702918-10RE1	10FEB11.D	02/10/17 09:57
MS Tune	1702340-TUN2	10FEB31.D	02/10/17 17:58
Calibration Check	1702340-CCV3	10FEB32.D	02/10/17 18:22
Calibration Check	1702340-CCV4	10FEB33.D	02/10/17 18:45
Calibration Blank	1702340-CCB2	10FEB34.D	02/10/17 19:08



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Project Number: 5023146096
Project Manager: Kelli Miller

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Lab File ID: 26JAN03.D Injection Date: 01/26/17
Instrument ID: MS-V5 Injection Time: 12:01
Sequence: 1702048 Lab Sample ID: 1702048-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
Mass 50	15 - 40% of Mass 95	32.2	PASS
Mass 75	30 - 60% of Mass 95	50.9	PASS
Mass 95	Base peak, 100% relative abundance	100	PASS
Mass 96	5 - 9% of Mass 95	6.86	PASS
Mass 173	Less than 2% of Mass 174	0	PASS
Mass 174	50 - 100% of Mass 95	64.3	PASS
Mass 175	5 - 9% of Mass 174	7.93	PASS
Mass 176	95 - 101% of Mass 174	98.5	PASS
Mass 177	5 - 9% of Mass 176	5.13	PASS



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MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Lab File ID: 07FEB05.D Injection Date: 02/07/17
Instrument ID: MS-V5 Injection Time: 08:42
Sequence: 1702048 Lab Sample ID: 1702048-TUN2

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
Mass 50	15 - 40% of Mass 95	25.6	PASS
Mass 75	30 - 60% of Mass 95	46.1	PASS
Mass 95	Base peak, 100% relative abundance	100	PASS
Mass 96	5 - 9% of Mass 95	6.48	PASS
Mass 173	Less than 2% of Mass 174	0.982	PASS
Mass 174	50 - 100% of Mass 95	89.9	PASS
Mass 175	5 - 9% of Mass 174	8.56	PASS
Mass 176	95 - 101% of Mass 174	101	PASS
Mass 177	5 - 9% of Mass 176	5.99	PASS



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MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Lab File ID: 13DEC05.D Injection Date: 12/13/16
Instrument ID: MS-V5 Injection Time: 09:45
Sequence: 1702048 Lab Sample ID: 1702048-TUN3

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
Mass 50	15 - 40% of Mass 95	25.9	PASS
Mass 75	30 - 60% of Mass 95	54.3	PASS
Mass 95	Base peak, 100% relative abundance	100	PASS
Mass 96	5 - 9% of Mass 95	6.64	PASS
Mass 173	Less than 2% of Mass 174	1.48	PASS
Mass 174	50 - 100% of Mass 95	75.1	PASS
Mass 175	5 - 9% of Mass 174	7.62	PASS
Mass 176	95 - 101% of Mass 174	98	PASS
Mass 177	5 - 9% of Mass 176	6.02	PASS



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MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Lab File ID: 08FEB01.D Injection Date: 02/08/17
Instrument ID: MS-V5 Injection Time: 05:22
Sequence: 1702156 Lab Sample ID: 1702156-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
Mass 50	15 - 40% of Mass 95	25.5	PASS
Mass 75	30 - 60% of Mass 95	49.8	PASS
Mass 95	Base peak, 100% relative abundance	100	PASS
Mass 96	5 - 9% of Mass 95	6.83	PASS
Mass 173	Less than 2% of Mass 174	0	PASS
Mass 174	50 - 100% of Mass 95	98.2	PASS
Mass 175	5 - 9% of Mass 174	6.62	PASS
Mass 176	95 - 101% of Mass 174	96.8	PASS
Mass 177	5 - 9% of Mass 176	7.16	PASS



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MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Lab File ID: 08FEB31.D Injection Date: 02/08/17
Instrument ID: MS-V5 Injection Time: 17:13
Sequence: 1702156 Lab Sample ID: 1702156-TUN2

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
Mass 50	15 - 40% of Mass 95	24.2	PASS
Mass 75	30 - 60% of Mass 95	44.3	PASS
Mass 95	Base peak, 100% relative abundance	100	PASS
Mass 96	5 - 9% of Mass 95	5.99	PASS
Mass 173	Less than 2% of Mass 174	0	PASS
Mass 174	50 - 100% of Mass 95	72.8	PASS
Mass 175	5 - 9% of Mass 174	8.27	PASS
Mass 176	95 - 101% of Mass 174	101	PASS
Mass 177	5 - 9% of Mass 176	6.61	PASS



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MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Lab File ID:	<u>09FEB01.D</u>	Injection Date:	<u>02/09/17</u>
Instrument ID:	<u>MS-V5</u>	Injection Time:	<u>04:51</u>
Sequence:	<u>1702156</u>	Lab Sample ID:	<u>1702156-TUN3</u>

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
Mass 50	15 - 40% of Mass 95	30	PASS
Mass 75	30 - 60% of Mass 95	43.6	PASS
Mass 95	Base peak, 100% relative abundance	100	PASS
Mass 96	5 - 9% of Mass 95	7.99	PASS
Mass 173	Less than 2% of Mass 174	1.03	PASS
Mass 174	50 - 100% of Mass 95	94.6	PASS
Mass 175	5 - 9% of Mass 174	5.62	PASS
Mass 176	95 - 101% of Mass 174	100	PASS
Mass 177	5 - 9% of Mass 176	8.81	PASS



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MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Lab File ID: 09FEB35.D Injection Date: 02/09/17
Instrument ID: MS-V5 Injection Time: 18:28
Sequence: 1702254 Lab Sample ID: 1702254-TUN2

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
Mass 50	15 - 40% of Mass 95	24.9	PASS
Mass 75	30 - 60% of Mass 95	47.5	PASS
Mass 95	Base peak, 100% relative abundance	100	PASS
Mass 96	5 - 9% of Mass 95	6.46	PASS
Mass 173	Less than 2% of Mass 174	0.861	PASS
Mass 174	50 - 100% of Mass 95	78.5	PASS
Mass 175	5 - 9% of Mass 174	5.85	PASS
Mass 176	95 - 101% of Mass 174	97.1	PASS
Mass 177	5 - 9% of Mass 176	8.24	PASS



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MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Lab File ID:	<u>10FEB01.D</u>	Injection Date:	<u>02/10/17</u>
Instrument ID:	<u>MS-V5</u>	Injection Time:	<u>06:04</u>
Sequence:	<u>1702254</u>	Lab Sample ID:	<u>1702254-TUN3</u>

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
Mass 50	15 - 40% of Mass 95	22.8	PASS
Mass 75	30 - 60% of Mass 95	47.2	PASS
Mass 95	Base peak, 100% relative abundance	100	PASS
Mass 96	5 - 9% of Mass 95	5.03	PASS
Mass 173	Less than 2% of Mass 174	0	PASS
Mass 174	50 - 100% of Mass 95	99.5	PASS
Mass 175	5 - 9% of Mass 174	8.63	PASS
Mass 176	95 - 101% of Mass 174	99	PASS
Mass 177	5 - 9% of Mass 176	6.11	PASS



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MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Lab File ID: 10FEB01.D Injection Date: 02/10/17
Instrument ID: MS-V5 Injection Time: 06:04
Sequence: 1702340 Lab Sample ID: 1702340-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
Mass 50	15 - 40% of Mass 95	22.8	PASS
Mass 75	30 - 60% of Mass 95	47.2	PASS
Mass 95	Base peak, 100% relative abundance	100	PASS
Mass 96	5 - 9% of Mass 95	5.03	PASS
Mass 173	Less than 2% of Mass 174	0	PASS
Mass 174	50 - 100% of Mass 95	99.5	PASS
Mass 175	5 - 9% of Mass 174	8.63	PASS
Mass 176	95 - 101% of Mass 174	99	PASS
Mass 177	5 - 9% of Mass 176	6.11	PASS



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MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Lab File ID: 10FEB31.D Injection Date: 02/10/17
Instrument ID: MS-V5 Injection Time: 17:58
Sequence: 1702340 Lab Sample ID: 1702340-TUN2

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
Mass 50	15 - 40% of Mass 95	24.3	PASS
Mass 75	30 - 60% of Mass 95	39.9	PASS
Mass 95	Base peak, 100% relative abundance	100	PASS
Mass 96	5 - 9% of Mass 95	6.17	PASS
Mass 173	Less than 2% of Mass 174	1.89	PASS
Mass 174	50 - 100% of Mass 95	78.1	PASS
Mass 175	5 - 9% of Mass 174	8.75	PASS
Mass 176	95 - 101% of Mass 174	96.7	PASS
Mass 177	5 - 9% of Mass 176	6.05	PASS



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CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>26JAN15.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702156</u>	Injection Date:	<u>01/26/17</u>
Lab Sample ID:	<u>1702156-ICV1</u>	Injection Time:	<u>19:35</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Benzene	A	25.000	24.520	1.889545	1.853263		-1.9	20
Bromobenzene	A	25.000	26.750	1.179324	1.261962		7.0	20
Bromochloromethane	A	25.000	27.870	0.1547174	0.1724858		11.5	20
Bromodichloromethane	A	25.000	26.320	0.3292103	0.3466539		5.3	20
Bromoform	A	25.000	29.540	0.3506939	0.4143899	0.1	18.2	20
Bromomethane	A	25.000	25.400	0.3180084	0.323081		1.6	20
n-Butylbenzene	A	25.000	24.450	3.493597	3.416282		-2.2	20
sec-Butylbenzene	A	25.000	22.320	5.379312	4.803427		-10.7	20
tert-Butylbenzene	A	25.000	24.540	3.852201	3.780801		-1.9	20
Carbon tetrachloride	A	25.000	24.550	0.4688551	0.4604308		-1.8	20
Chlorobenzene	A	25.000	25.550	2.978027	3.04388	0.3	2.2	20
Chloroethane	A	25.000	25.010	0.3902835	0.3904325		0.04	20
Chloroform	A	25.000	25.080	0.7548469	0.7572197		0.3	20
Chloromethane	L	25.000	21.450	0.6989857	0.5449247	0.1	-14.2	20
2-Chlorotoluene	A	25.000	25.230	3.666018	3.699401		0.9	20
4-Chlorotoluene	A	25.000	25.250	3.285453	3.318671		1.0	20
Dibromochloromethane	A	25.000	28.210	0.1708407	0.1927603		12.8	20
1,2-Dibromo-3-chloropropane	L	25.000	26.780	0.0666406	0.0808198		7.1	20
1,2-Dibromoethane	A	25.000	28.160	0.1390115	0.1565905		12.6	20
Dibromomethane	A	25.000	25.600	0.1132441	0.1159592		2.4	20
1,2-Dichlorobenzene	A	25.000	25.120	1.693334	1.701651		0.5	20
1,3-Dichlorobenzene	A	25.000	23.440	2.068389	1.939285		-6.2	20
1,4-Dichlorobenzene	A	25.000	25.950	1.916207	1.989058		3.8	20



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CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>26JAN15.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702156</u>	Injection Date:	<u>01/26/17</u>
Lab Sample ID:	<u>1702156-ICV1</u>	Injection Time:	<u>19:35</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Dichlorodifluoromethane	A	25.000	23.190	0.4765408	0.4420548		-7.2	20
1,1-Dichloroethane	A	25.000	25.000	1.030991	1.031141	0.1	0.01	20
1,2-Dichloroethane	A	25.000	26.060	0.438219	0.4568204		4.2	20
1,1-Dichloroethene	A	25.000	24.850	0.7766588	0.7719666		-0.6	20
cis-1,2-Dichloroethene	A	25.000	25.440	0.46668	0.474977		1.8	20
trans-1,2-Dichloroethene	A	25.000	23.910	0.4502706	0.4305847		-4.4	20
1,2-Dichloropropane	A	25.000	25.240	0.3723232	0.3758662		1.0	20
1,3-Dichloropropane	A	25.000	27.900	0.2667047	0.2976682		11.6	20
2,2-Dichloropropane	A	25.000	23.050	0.6461859	0.595668		-7.8	20
1,1-Dichloropropene	A	25.000	24.340	0.61317	0.5969539		-2.6	20
cis-1,3-Dichloropropene	A	25.000	25.890	0.436368	0.4519754		3.6	20
trans-1,3-Dichloropropene	A	25.000	27.510	0.3001727	0.3303126		10.0	20
Ethylbenzene	A	25.000	24.810	1.699115	1.686003		-0.8	20
Hexachlorobutadiene	A	25.000	22.520	0.8012975	0.7218586		-9.9	20
Isopropylbenzene	A	25.000	23.670	5.188549	4.913541		-5.3	20
p-Isopropyltoluene	A	25.000	22.960	4.064913	3.733001		-8.2	20
Methylene chloride	L	25.000	27.090	0.601454	0.4144394		8.4	20
Methyl t-butyl ether	A	25.000	29.040	0.6285989	0.7300879		16.1	20
Naphthalene	A	25.000	28.850	1.162765	1.341925		15.4	20
n-Propylbenzene	A	25.000	23.210	5.959786	5.533521		-7.2	20
Styrene	A	25.000	26.030	2.90027	3.020175		4.1	20
1,1,1,2-Tetrachloroethane	A	25.000	25.800	0.9261768	0.9556971		3.2	20
1,1,2,2-Tetrachloroethane	A	25.000	28.950	0.555952	0.6436956	0.3	15.8	20



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>26JAN15.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702156</u>	Injection Date:	<u>01/26/17</u>
Lab Sample ID:	<u>1702156-ICV1</u>	Injection Time:	<u>19:35</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Tetrachloroethene	A	25.000	23.430	0.3412463	0.3197576		-6.3	20
Toluene	A	25.000	24.190	0.7797766	0.7546079		-3.2	20
1,2,3-Trichlorobenzene	A	25.000	26.710	1.02527	1.095334		6.8	20
1,2,4-Trichlorobenzene	A	25.000	26.280	1.194842	1.256226		5.1	20
1,1,1-Trichloroethane	A	25.000	24.320	0.6397625	0.6223499		-2.7	20
1,1,2-Trichloroethane	A	25.000	28.140	0.1533095	0.1725615		12.6	20
Trichloroethene	A	25.000	25.380	0.3255704	0.3305227		1.5	20
Trichlorofluoromethane	A	25.000	23.360	0.5867905	0.5482351		-6.6	20
1,2,3-Trichloropropane	L	25.000	29.760	0.105337	0.1291837		19.0	20
1,1,2-Trichloro-1,2,2-trifluoroethane	A	25.000	22.390	0.4183029	0.3745928		-10.4	20
1,2,4-Trimethylbenzene	A	25.000	24.970	3.597754	3.593467		-0.1	20
1,3,5-Trimethylbenzene	A	25.000	23.180	3.970515	3.680896		-7.3	20
Vinyl chloride	A	25.000	20.170	0.5958562	0.4807637		-19.3	20
Total Xylenes	A	75.000	74.270	1.988127	1.96886		-1.0	20
Hexachloroethane	A	25.000	25.960	0.7041294	0.7312332		3.8	20
p- & m-Xylenes	A	50.000	49.530	2.011739	1.992895		-0.9	20
o-Xylene	A	25.000	24.740	1.940902	1.920791		-1.0	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits for beginning CCVs. For ending CCVs, limit is 50.

(1): Cal Type (Calibration Type): A = Average; L = Linear Regression; Q = Quadratic Regression

(2): % Diff (of Response Factors) reported when Cal Type = A; %Drift (of Conc) reported when Cal Type = L or Q



AMEC Environmental & Infrastructure
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Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>07FEB15.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702156</u>	Injection Date:	<u>02/07/17</u>
Lab Sample ID:	<u>1702156-ICV2</u>	Injection Time:	<u>12:46</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Acetone	A	320.00	315.03	0.044841	4.414517E-02		-1.6	20
Acetonitrile	L	160.00	201.66	1.965066E-02	2.067974E-02		26.0	20 *
Acrylonitrile	A	80.000	81.340	6.371868E-02	6.478198E-02		1.7	20
Allyl chloride	A	32.000	31.180	1.114402	1.08574		-2.6	20
t-Amyl Methyl ether	A	16.000	15.090	0.7281162	0.6866905		-5.7	20
Benzyl chloride	A	32.000	31.760	0.8656921	0.8592213		-0.7	20
t-Butyl alcohol	A	800.00	811.29	1.280474E-02	1.298544E-02		1.4	20
Carbon disulfide	A	32.000	32.220	1.344744	1.354047		0.7	20
Chloroprene	A	32.000	31.360	1.000946	0.9807911		-2.0	20
trans-1,4-Dichloro-2-butene	A	80.000	76.690	0.1551532	0.1487324		-4.1	20
Diethyl ether	A	25.000	24.130	0.2602638	0.2512119		-3.5	20
Diisopropyl ether	A	16.000	15.550	0.3174881	0.3085884		-2.8	20
Ethyl methacrylate	A	80.000	77.570	0.1775957	0.1721904		-3.0	20
Ethyl t-butyl ether	A	16.000	15.050	1.311089	1.233435		-5.9	20
2-Hexanone	Q	320.00	312.86	0.0923643	8.615645E-02		-2.2	20
Methacrylonitrile	A	160.00	158.40	6.173201E-02	6.111602E-02		-1.0	20
Methyl ethyl ketone	A	160.00	154.88	0.0879739	0.0851614		-3.2	20
Methyl iodide	A	32.000	32.140	0.5848188	0.5874023		0.4	20
Methyl isobutyl ketone	A	160.00	147.91	0.1389299	0.12843		-7.6	20
Methyl methacrylate	A	80.000	76.700	8.339718E-02	7.995216E-02		-4.1	20
Pentachloroethane	A	16.000	15.870	0.5366092	0.5321011		-0.8	20
Propionitrile	A	400.00	409.66	2.300947E-02	2.356491E-02		2.4	20
Tetrahydrofuran	A	320.00	306.99	5.139228E-02	4.930284E-02		-4.1	20



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CONTINUING CALIBRATION CHECK**EPA-8260B**

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>07FEB15.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702156</u>	Injection Date:	<u>02/07/17</u>
Lab Sample ID:	<u>1702156-ICV2</u>	Injection Time:	<u>12:46</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Vinyl acetate	A	160.00	147.71	0.6344058	0.5856918		-7.7	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits for beginning CCVs. For ending CCVs, limit is 50.

(1): Cal Type (Calibration Type): A = Average; L = Linear Regression; Q = Quadratic Regression

(2): % Diff (of Response Factors) reported when Cal Type = A; %Drift (of Conc) reported when Cal Type = L or Q



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
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Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>08FEB02.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702156</u>	Injection Date:	<u>02/08/17</u>
Lab Sample ID:	<u>1702156-CCV1</u>	Injection Time:	<u>05:47</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Benzene	A	25.000	26.170	1.889545	1.977895		4.7	20
Bromobenzene	A	25.000	25.980	1.179324	1.225374		3.9	20
Bromochloromethane	A	25.000	28.430	0.1547174	0.1759729		13.7	20
Bromodichloromethane	A	25.000	27.040	0.3292103	0.3560816		8.2	20
Bromoform	A	25.000	26.190	0.3506939	0.3673789	0.1	4.8	20
Bromomethane	A	25.000	17.380	0.3180084	0.2210915		-30.5	20 *
n-Butylbenzene	A	25.000	25.520	3.493597	3.566178		2.1	20
sec-Butylbenzene	A	25.000	23.620	5.379312	5.082763		-5.5	20
tert-Butylbenzene	A	25.000	25.920	3.852201	3.993717		3.7	20
Carbon tetrachloride	A	25.000	28.110	0.4688551	0.5271228		12.4	20
Chlorobenzene	A	25.000	24.750	2.978027	2.947924	0.3	-1.0	20
Chloroethane	A	25.000	26.730	0.3902835	0.4172427		6.9	20
Chloroform	A	25.000	27.270	0.7548469	0.8234639		9.1	20
Chloromethane	L	25.000	29.500	0.6989857	0.7423963	0.1	18.0	20
2-Chlorotoluene	A	25.000	22.990	3.666018	3.370803		-8.1	20
4-Chlorotoluene	A	25.000	25.020	3.285453	3.288064		0.08	20
Dibromochloromethane	A	25.000	27.390	0.1708407	0.1871549		9.5	20
1,2-Dibromo-3-chloropropane	L	25.000	25.640	0.0666406	7.739216E-02		2.6	20
1,2-Dibromoethane	A	25.000	27.770	0.1390115	0.1544111		11.1	20
Dibromomethane	A	25.000	25.490	0.1132441	0.1154718		2.0	20
1,2-Dichlorobenzene	A	25.000	24.490	1.693334	1.659104		-2.0	20
1,3-Dichlorobenzene	A	25.000	22.220	2.068389	1.838708		-11.1	20
1,4-Dichlorobenzene	A	25.000	24.690	1.916207	1.892123		-1.3	20



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CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>08FEB02.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702156</u>	Injection Date:	<u>02/08/17</u>
Lab Sample ID:	<u>1702156-CCV1</u>	Injection Time:	<u>05:47</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Dichlorodifluoromethane	A	25.000	26.840	0.4765408	0.5116786		7.4	20
1,1-Dichloroethane	A	25.000	26.230	1.030991	1.081569	0.1	4.9	20
1,2-Dichloroethane	A	25.000	28.180	0.438219	0.4940306		12.7	20
1,1-Dichloroethene	A	25.000	26.650	0.7766588	0.8279463		6.6	20
cis-1,2-Dichloroethene	A	25.000	27.020	0.46668	0.5043139		8.1	20
trans-1,2-Dichloroethene	A	25.000	25.950	0.4502706	0.4673558		3.8	20
1,2-Dichloropropane	A	25.000	24.800	0.3723232	0.3692835		-0.8	20
1,3-Dichloropropane	A	25.000	26.450	0.2667047	0.2822134		5.8	20
2,2-Dichloropropane	A	25.000	29.220	0.6461859	0.7553785		16.9	20
1,1-Dichloropropene	A	25.000	27.580	0.61317	0.6765638		10.3	20
cis-1,3-Dichloropropene	A	25.000	25.530	0.436368	0.4456228		2.1	20
trans-1,3-Dichloropropene	A	25.000	25.850	0.3001727	0.3103747		3.4	20
Ethylbenzene	A	25.000	25.500	1.699115	1.733135		2.0	20
Hexachlorobutadiene	A	25.000	26.430	0.8012975	0.8470116		5.7	20
Isopropylbenzene	A	25.000	24.900	5.188549	5.166842		-0.4	20
p-Isopropyltoluene	A	25.000	23.390	4.064913	3.803447		-6.4	20
Methylene chloride	L	25.000	27.090	0.601454	0.4144756		8.4	20
Methyl t-butyl ether	A	25.000	28.650	0.6285989	0.720428		14.6	20
Naphthalene	A	25.000	29.610	1.162765	1.37715		18.4	20
n-Propylbenzene	A	25.000	23.580	5.959786	5.62009		-5.7	20
Styrene	A	25.000	26.190	2.90027	3.038101		4.8	20
1,1,1,2-Tetrachloroethane	A	25.000	25.970	0.9261768	0.9620258		3.9	20
1,1,2,2-Tetrachloroethane	A	25.000	26.270	0.555952	0.5842813	0.3	5.1	20



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CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>08FEB02.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702156</u>	Injection Date:	<u>02/08/17</u>
Lab Sample ID:	<u>1702156-CCV1</u>	Injection Time:	<u>05:47</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Tetrachloroethene	A	25.000	27.780	0.3412463	0.3792314		11.1	20
Toluene	A	25.000	26.310	0.7797766	0.8207332		5.3	20
1,2,3-Trichlorobenzene	A	25.000	30.390	1.02527	1.246388		21.6	20 *
1,2,4-Trichlorobenzene	A	25.000	29.180	1.194842	1.394566		16.7	20
1,1,1-Trichloroethane	A	25.000	27.960	0.6397625	0.7154229		11.8	20
1,1,2-Trichloroethane	A	25.000	27.120	0.1533095	0.1662993		8.5	20
Trichloroethene	A	25.000	27.150	0.3255704	0.3536296		8.6	20
Trichlorofluoromethane	A	25.000	28.950	0.5867905	0.679491		15.8	20
1,2,3-Trichloropropane	L	25.000	26.940	0.105337	0.1176647		7.8	20
1,1,2-Trichloro-1,2,2-trifluoroethane	A	25.000	26.660	0.4183029	0.4461576		6.7	20
1,2,4-Trimethylbenzene	A	25.000	25.230	3.597754	3.631125		0.9	20
1,3,5-Trimethylbenzene	A	25.000	23.120	3.970515	3.672645		-7.5	20
Vinyl chloride	A	25.000	27.190	0.5958562	0.648114		8.8	20
Total Xylenes	A	75.000	76.280	1.988127	2.022082		1.7	20
Hexachloroethane	A	25.000	22.910	0.7041294	0.6452215		-8.4	20
p- & m-Xylenes	A	50.000	50.880	2.011739	2.047162		1.8	20
o-Xylene	A	25.000	25.400	1.940902	1.971924		1.6	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits for beginning CCVs. For ending CCVs, limit is 50.

(1): Cal Type (Calibration Type): A = Average; L = Linear Regression; Q = Quadratic Regression

(2): % Diff (of Response Factors) reported when Cal Type = A; %Drift (of Conc) reported when Cal Type = L or Q



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>08FEB03.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702156</u>	Injection Date:	<u>02/08/17</u>
Lab Sample ID:	<u>1702156-CCV2</u>	Injection Time:	<u>06:11</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Acetone	A	320.00	351.51	0.044841	4.925633E-02		9.8	20
Acetonitrile	L	160.00	224.77	1.965066E-02	2.287569E-02		40.5	20 *
Acrylonitrile	A	80.000	86.240	6.371868E-02	6.868542E-02		7.8	20
Allyl chloride	A	32.000	31.970	1.114402	1.113408		-0.09	20
t-Amyl Methyl ether	A	16.000	15.870	0.7281162	0.7221184		-0.8	20
Benzyl chloride	A	32.000	34.770	0.8656921	0.9407231		8.7	20
t-Butyl alcohol	A	800.00	915.14	1.280474E-02	1.464765E-02		14.4	20
Carbon disulfide	A	32.000	31.490	1.344744	1.323477		-1.6	20
Chloroprene	A	32.000	32.630	1.000946	1.020514		2.0	20
trans-1,4-Dichloro-2-butene	A	80.000	77.300	0.1551532	0.149913		-3.4	20
Diethyl ether	A	25.000	26.370	0.2602638	0.2745156		5.5	20
Diisopropyl ether	A	16.000	16.840	0.3174881	0.3341267		5.2	20
Ethyl methacrylate	A	80.000	79.530	0.1775957	0.1765481		-0.6	20
Ethyl t-butyl ether	A	16.000	16.060	1.311089	1.315968		0.4	20
2-Hexanone	Q	320.00	334.85	0.0923643	9.116137E-02		4.6	20
Methacrylonitrile	A	160.00	163.55	6.173201E-02	6.310123E-02		2.2	20
Methyl ethyl ketone	A	160.00	170.94	0.0879739	9.398735E-02		6.8	20
Methyl iodide	A	32.000	13.310	0.5848188	0.2431894		-58.4	20 *
Methyl isobutyl ketone	A	160.00	158.55	0.1389299	0.1376671		-0.9	20
Methyl methacrylate	A	80.000	79.980	8.339718E-02	8.337669E-02		-0.02	20
Pentachloroethane	A	16.000	18.060	0.5366092	0.6055388		12.8	20
Propionitrile	A	400.00	433.47	2.300947E-02	2.493457E-02		8.4	20
Tetrahydrofuran	A	320.00	320.07	5.139228E-02	5.140293E-02		0.02	20



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

CONTINUING CALIBRATION CHECK**EPA-8260B**

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>08FEB03.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702156</u>	Injection Date:	<u>02/08/17</u>
Lab Sample ID:	<u>1702156-CCV2</u>	Injection Time:	<u>06:11</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Vinyl acetate	A	160.00	158.75	0.6344058	0.6294348		-0.8	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits for beginning CCVs. For ending CCVs, limit is 50.

(1): Cal Type (Calibration Type): A = Average; L = Linear Regression; Q = Quadratic Regression

(2): % Diff (of Response Factors) reported when Cal Type = A; %Drift (of Conc) reported when Cal Type = L or Q



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Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>08FEB32.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702156</u>	Injection Date:	<u>02/08/17</u>
Lab Sample ID:	<u>1702156-CCV3</u>	Injection Time:	<u>17:36</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Benzene	A	25.000	24.440	1.889545	1.84713		-2.2	20
Bromobenzene	A	25.000	24.270	1.179324	1.144769		-2.9	20
Bromochloromethane	A	25.000	26.810	0.1547174	0.1659388		7.3	20
Bromodichloromethane	A	25.000	25.090	0.3292103	0.3303975		0.4	20
Bromoform	A	25.000	22.600	0.3506939	0.3170247	0.1	-9.6	20
Bromomethane	A	25.000	13.420	0.3180084	0.1707542		-46.3	20 *
n-Butylbenzene	A	25.000	23.920	3.493597	3.342363		-4.3	20
sec-Butylbenzene	A	25.000	22.600	5.379312	4.862085		-9.6	20
tert-Butylbenzene	A	25.000	22.230	3.852201	3.424796		-11.1	20
Carbon tetrachloride	A	25.000	25.600	0.4688551	0.4801255		2.4	20
Chlorobenzene	A	25.000	23.860	2.978027	2.842179	0.3	-4.6	20
Chloroethane	A	25.000	25.310	0.3902835	0.3951485		1.2	20
Chloroform	A	25.000	24.750	0.7548469	0.7472747		-1.0	20
Chloromethane	L	25.000	25.460	0.6989857	0.643157	0.1	1.8	20
2-Chlorotoluene	A	25.000	21.110	3.666018	3.094864		-15.6	20
4-Chlorotoluene	A	25.000	22.910	3.285453	3.010759		-8.4	20
Dibromochloromethane	A	25.000	26.030	0.1708407	0.1778654		4.1	20
1,2-Dibromo-3-chloropropane	L	25.000	23.020	0.0666406	6.953676E-02		-7.9	20
1,2-Dibromoethane	A	25.000	25.180	0.1390115	0.1400308		0.7	20
Dibromomethane	A	25.000	23.860	0.1132441	0.1080611		-4.6	20
1,2-Dichlorobenzene	A	25.000	22.260	1.693334	1.507844		-11.0	20
1,3-Dichlorobenzene	A	25.000	21.130	2.068389	1.747896		-15.5	20
1,4-Dichlorobenzene	A	25.000	23.090	1.916207	1.769621		-7.6	20



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CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>08FEB32.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702156</u>	Injection Date:	<u>02/08/17</u>
Lab Sample ID:	<u>1702156-CCV3</u>	Injection Time:	<u>17:36</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Dichlorodifluoromethane	A	25.000	24.180	0.4765408	0.4609064		-3.3	20
1,1-Dichloroethane	A	25.000	24.050	1.030991	0.9917687	0.1	-3.8	20
1,2-Dichloroethane	A	25.000	24.750	0.438219	0.4339063		-1.0	20
1,1-Dichloroethene	A	25.000	25.710	0.7766588	0.798673		2.8	20
cis-1,2-Dichloroethene	A	25.000	25.240	0.46668	0.4711643		1.0	20
trans-1,2-Dichloroethene	A	25.000	24.660	0.4502706	0.4441965		-1.3	20
1,2-Dichloropropane	A	25.000	23.740	0.3723232	0.3535067		-5.1	20
1,3-Dichloropropane	A	25.000	24.850	0.2667047	0.2651573		-0.6	20
2,2-Dichloropropane	A	25.000	25.040	0.6461859	0.6472968		0.2	20
1,1-Dichloropropene	A	25.000	25.060	0.61317	0.614639		0.2	20
cis-1,3-Dichloropropene	A	25.000	23.610	0.436368	0.4121106		-5.6	20
trans-1,3-Dichloropropene	A	25.000	24.690	0.3001727	0.2965086		-1.2	20
Ethylbenzene	A	25.000	24.050	1.699115	1.634307		-3.8	20
Hexachlorobutadiene	A	25.000	25.770	0.8012975	0.8260266		3.1	20
Isopropylbenzene	A	25.000	23.470	5.188549	4.871825		-6.1	20
p-Isopropyltoluene	A	25.000	22.650	4.064913	3.682724		-9.4	20
Methylene chloride	L	25.000	26.440	0.601454	0.405324		5.8	20
Methyl t-butyl ether	A	25.000	26.180	0.6285989	0.6583851		4.7	20
Naphthalene	A	25.000	26.800	1.162765	1.246537		7.2	20
n-Propylbenzene	A	25.000	22.050	5.959786	5.255908		-11.8	20
Styrene	A	25.000	24.700	2.90027	2.865598		-1.2	20
1,1,1,2-Tetrachloroethane	A	25.000	23.560	0.9261768	0.8727537		-5.8	20
1,1,2,2-Tetrachloroethane	A	25.000	23.310	0.555952	0.5183954	0.3	-6.8	20



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CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>08FEB32.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702156</u>	Injection Date:	<u>02/08/17</u>
Lab Sample ID:	<u>1702156-CCV3</u>	Injection Time:	<u>17:36</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Tetrachloroethene	A	25.000	28.180	0.3412463	0.3846134		12.7	20
Toluene	A	25.000	25.070	0.7797766	0.7819629		0.3	20
1,2,3-Trichlorobenzene	A	25.000	27.860	1.02527	1.142509		11.4	20
1,2,4-Trichlorobenzene	A	25.000	26.360	1.194842	1.25964		5.4	20
1,1,1-Trichloroethane	A	25.000	26.300	0.6397625	0.6729738		5.2	20
1,1,2-Trichloroethane	A	25.000	25.290	0.1533095	0.1551068		1.2	20
Trichloroethene	A	25.000	26.710	0.3255704	0.3478765		6.9	20
Trichlorofluoromethane	A	25.000	25.800	0.5867905	0.6054788		3.2	20
1,2,3-Trichloropropane	L	25.000	27.360	0.105337	0.1193801		9.4	20
1,1,2-Trichloro-1,2,2-trifluoroethane	A	25.000	25.630	0.4183029	0.4287975		2.5	20
1,2,4-Trimethylbenzene	A	25.000	23.770	3.597754	3.420963		-4.9	20
1,3,5-Trimethylbenzene	A	25.000	22.050	3.970515	3.501701		-11.8	20
Vinyl chloride	A	25.000	26.850	0.5958562	0.6400084		7.4	20
Total Xylenes	A	75.000	71.830	1.988127	1.90406		-4.2	20
Hexachloroethane	A	25.000	17.750	0.7041294	0.4999608		-29.0	20 *
p- & m-Xylenes	A	50.000	47.990	2.011739	1.930835		-4.0	20
o-Xylene	A	25.000	23.840	1.940902	1.850509		-4.7	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits for beginning CCVs. For ending CCVs, limit is 50.

(1): Cal Type (Calibration Type): A = Average; L = Linear Regression; Q = Quadratic Regression

(2): % Diff (of Response Factors) reported when Cal Type = A; %Drift (of Conc) reported when Cal Type = L or Q



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CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>08FEB33.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702156</u>	Injection Date:	<u>02/08/17</u>
Lab Sample ID:	<u>1702156-CCV4</u>	Injection Time:	<u>17:59</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Acetone	A	320.00	357.87	0.044841	5.014776E-02		11.8	20
Acetonitrile	L	160.00	237.06	1.965066E-02	2.404354E-02		48.2	20 *
Acrylonitrile	A	80.000	89.050	6.371868E-02	7.092464E-02		11.3	20
Allyl chloride	A	32.000	30.690	1.114402	1.06869		-4.1	20
t-Amyl Methyl ether	A	16.000	17.090	0.7281162	0.7778579		6.8	20
Benzyl chloride	A	32.000	30.450	0.8656921	0.8237278		-4.8	20
t-Butyl alcohol	A	800.00	876.68	1.280474E-02	1.403211E-02		9.6	20
Carbon disulfide	A	32.000	34.130	1.344744	1.434264		6.7	20
Chloroprene	A	32.000	32.540	1.000946	1.017829		1.7	20
trans-1,4-Dichloro-2-butene	A	80.000	54.440	0.1551532	0.1055863		-31.9	20 *
Diethyl ether	A	25.000	28.010	0.2602638	0.2916469		12.1	20
Diisopropyl ether	A	16.000	17.220	0.3174881	0.3417013		7.6	20
Ethyl methacrylate	A	80.000	80.020	0.1775957	0.1776493		0.03	20
Ethyl t-butyl ether	A	16.000	16.480	1.311089	1.3508		3.0	20
2-Hexanone	Q	320.00	323.99	0.0923643	8.870374E-02		1.2	20
Methacrylonitrile	A	160.00	174.06	6.173201E-02	6.715547E-02		8.8	20
Methyl ethyl ketone	A	160.00	168.85	0.0879739	9.283844E-02		5.5	20
Methyl iodide	A	32.000	9.2700	0.5848188	0.1693405		-71.0	20 *
Methyl isobutyl ketone	A	160.00	161.69	0.1389299	0.1403974		1.1	20
Methyl methacrylate	A	80.000	80.780	8.339718E-02	0.0842133		1.0	20
Pentachloroethane	A	16.000	5.6500	0.5366092	0.1893583		-64.7	20 *
Propionitrile	A	400.00	460.14	2.300947E-02	2.646895E-02		15.0	20
Tetrahydrofuran	A	320.00	351.62	5.139228E-02	5.647057E-02		9.9	20



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CONTINUING CALIBRATION CHECK**EPA-8260B**

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>08FEB33.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702156</u>	Injection Date:	<u>02/08/17</u>
Lab Sample ID:	<u>1702156-CCV4</u>	Injection Time:	<u>17:59</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Vinyl acetate	A	160.00	134.80	0.6344058	0.5345057		-15.7	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits for beginning CCVs. For ending CCVs, limit is 50.

(1): Cal Type (Calibration Type): A = Average; L = Linear Regression; Q = Quadratic Regression

(2): % Diff (of Response Factors) reported when Cal Type = A; %Drift (of Conc) reported when Cal Type = L or Q



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CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>09FEB02.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702156</u>	Injection Date:	<u>02/09/17</u>
Lab Sample ID:	<u>1702156-CCV5</u>	Injection Time:	<u>05:14</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Benzene	A	25.000	25.420	1.889545	1.921225		1.7	20
Bromobenzene	A	25.000	26.230	1.179324	1.237465		4.9	20
Bromochloromethane	A	25.000	25.920	0.1547174	0.1604067		3.7	20
Bromodichloromethane	A	25.000	25.910	0.3292103	0.3411718		3.6	20
Bromoform	A	25.000	21.600	0.3506939	0.3029556	0.1	-13.6	20
Bromomethane	A	25.000	12.310	0.3180084	0.1566069		-50.8	20 *
n-Butylbenzene	A	25.000	27.130	3.493597	3.79133		8.5	20
sec-Butylbenzene	A	25.000	24.790	5.379312	5.333477		-0.9	20
tert-Butylbenzene	A	25.000	24.950	3.852201	3.844924		-0.2	20
Carbon tetrachloride	A	25.000	27.580	0.4688551	0.5173009		10.3	20
Chlorobenzene	A	25.000	25.450	2.978027	3.031768	0.3	1.8	20
Chloroethane	A	25.000	25.380	0.3902835	0.3961557		1.5	20
Chloroform	A	25.000	25.550	0.7548469	0.7716014		2.2	20
Chloromethane	L	25.000	27.600	0.6989857	0.6956548	0.1	10.4	20
2-Chlorotoluene	A	25.000	25.770	3.666018	3.779452		3.1	20
4-Chlorotoluene	A	25.000	25.590	3.285453	3.362646		2.3	20
Dibromochloromethane	A	25.000	25.910	0.1708407	0.1770835		3.7	20
1,2-Dibromo-3-chloropropane	L	25.000	23.940	0.0666406	7.229323E-02		-4.2	20
1,2-Dibromoethane	A	25.000	26.390	0.1390115	0.1467655		5.6	20
Dibromomethane	A	25.000	24.180	0.1132441	0.1095429		-3.3	20
1,2-Dichlorobenzene	A	25.000	24.470	1.693334	1.657318		-2.1	20
1,3-Dichlorobenzene	A	25.000	23.690	2.068389	1.960206		-5.2	20
1,4-Dichlorobenzene	A	25.000	25.350	1.916207	1.942712		1.4	20



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CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>09FEB02.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702156</u>	Injection Date:	<u>02/09/17</u>
Lab Sample ID:	<u>1702156-CCV5</u>	Injection Time:	<u>05:14</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Dichlorodifluoromethane	A	25.000	27.080	0.4765408	0.5160987		8.3	20
1,1-Dichloroethane	A	25.000	25.010	1.030991	1.031336	0.1	0.03	20
1,2-Dichloroethane	A	25.000	25.000	0.438219	0.4382373		0.004	20
1,1-Dichloroethene	A	25.000	26.920	0.7766588	0.8362908		7.7	20
cis-1,2-Dichloroethene	A	25.000	25.650	0.466668	0.4787816		2.6	20
trans-1,2-Dichloroethene	A	25.000	25.820	0.4502706	0.4650477		3.3	20
1,2-Dichloropropane	A	25.000	23.990	0.3723232	0.3572301		-4.1	20
1,3-Dichloropropane	A	25.000	25.130	0.2667047	0.2681412		0.5	20
2,2-Dichloropropane	A	25.000	29.110	0.6461859	0.7523905		16.4	20
1,1-Dichloropropene	A	25.000	26.670	0.61317	0.6540863		6.7	20
cis-1,3-Dichloropropene	A	25.000	24.710	0.436368	0.4313101		-1.2	20
trans-1,3-Dichloropropene	A	25.000	25.560	0.3001727	0.3068931		2.2	20
Ethylbenzene	A	25.000	25.690	1.699115	1.746178		2.8	20
Hexachlorobutadiene	A	25.000	29.900	0.8012975	0.9582893		19.6	20
Isopropylbenzene	A	25.000	25.300	5.188549	5.251143		1.2	20
p-Isopropyltoluene	A	25.000	26.230	4.064913	4.265313		4.9	20
Methylene chloride	L	25.000	27.430	0.601454	0.4192321		9.7	20
Methyl t-butyl ether	A	25.000	24.810	0.6285989	0.6238917		-0.7	20
Naphthalene	A	25.000	28.200	1.162765	1.311773		12.8	20
n-Propylbenzene	A	25.000	25.060	5.959786	5.973393		0.2	20
Styrene	A	25.000	25.920	2.90027	3.006876		3.7	20
1,1,1,2-Tetrachloroethane	A	25.000	25.220	0.9261768	0.9343984		0.9	20
1,1,2,2-Tetrachloroethane	A	25.000	24.120	0.555952	0.5364815	0.3	-3.5	20



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>09FEB02.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702156</u>	Injection Date:	<u>02/09/17</u>
Lab Sample ID:	<u>1702156-CCV5</u>	Injection Time:	<u>05:14</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Tetrachloroethene	A	25.000	32.190	0.3412463	0.4393493		28.7	20 *
Toluene	A	25.000	26.320	0.7797766	0.8209694		5.3	20
1,2,3-Trichlorobenzene	A	25.000	29.670	1.02527	1.216634		18.7	20
1,2,4-Trichlorobenzene	A	25.000	28.660	1.194842	1.36954		14.6	20
1,1,1-Trichloroethane	A	25.000	27.670	0.6397625	0.70811		10.7	20
1,1,2-Trichloroethane	A	25.000	26.240	0.1533095	0.1609123		5.0	20
Trichloroethene	A	25.000	27.450	0.3255704	0.3574979		9.8	20
Trichlorofluoromethane	A	25.000	28.770	0.5867905	0.6752755		15.1	20
1,2,3-Trichloropropane	L	25.000	26.530	0.105337	0.1159764		6.1	20
1,1,2-Trichloro-1,2,2-trifluoroethane	A	25.000	26.740	0.4183029	0.4474696		7.0	20
1,2,4-Trimethylbenzene	A	25.000	25.940	3.597754	3.732911		3.8	20
1,3,5-Trimethylbenzene	A	25.000	24.870	3.970515	3.949822		-0.5	20
Vinyl chloride	A	25.000	28.500	0.5958562	0.6792619		14.0	20
Total Xylenes	A	75.000	78.940	1.988127	2.092567		5.3	20
Hexachloroethane	A	25.000	17.450	0.7041294	0.4915632		-30.2	20 *
p- & m-Xylenes	A	50.000	52.610	2.011739	2.116665		5.2	20
o-Xylene	A	25.000	26.330	1.940902	2.044371		5.3	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits for beginning CCVs. For ending CCVs, limit is 50.

(1): Cal Type (Calibration Type): A = Average; L = Linear Regression; Q = Quadratic Regression

(2): % Diff (of Response Factors) reported when Cal Type = A; %Drift (of Conc) reported when Cal Type = L or Q



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Project Number: 5023146096
Project Manager: Kelli Miller

CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>09FEB03.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702156</u>	Injection Date:	<u>02/09/17</u>
Lab Sample ID:	<u>1702156-CCV6</u>	Injection Time:	<u>05:37</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Acetone	A	320.00	333.14	0.044841	4.668183E-02		4.1	20
Acetonitrile	L	160.00	215.99	1.965066E-02	0.0220413		35.0	20 *
Acrylonitrile	A	80.000	78.540	6.371868E-02	6.255687E-02		-1.8	20
Allyl chloride	A	32.000	28.660	1.114402	0.9981634		-10.4	20
t-Amyl Methyl ether	A	16.000	15.120	0.7281162	0.6881143		-5.5	20
Benzyl chloride	A	32.000	30.370	0.8656921	0.8214662		-5.1	20
t-Butyl alcohol	A	800.00	805.42	1.280474E-02	1.289152E-02		0.7	20
Carbon disulfide	A	32.000	32.420	1.344744	1.362327		1.3	20
Chloroprene	A	32.000	31.670	1.000946	0.9907588		-1.0	20
trans-1,4-Dichloro-2-butene	A	80.000	39.060	0.1551532	7.574548E-02		-51.2	20 *
Diethyl ether	A	25.000	25.930	0.2602638	0.2699681		3.7	20
Diisopropyl ether	A	16.000	15.750	0.3174881	0.3125173		-1.6	20
Ethyl methacrylate	A	80.000	77.360	0.1775957	0.1717243		-3.3	20
Ethyl t-butyl ether	A	16.000	14.890	1.311089	1.220187		-6.9	20
2-Hexanone	Q	320.00	307.79	0.0923643	8.498327E-02		-3.8	20
Methacrylonitrile	A	160.00	154.18	6.173201E-02	5.948537E-02		-3.6	20
Methyl ethyl ketone	A	160.00	152.86	0.0879739	8.404798E-02		-4.5	20
Methyl iodide	A	32.000	11.970	0.5848188	0.2187304		-62.6	20 *
Methyl isobutyl ketone	A	160.00	148.88	0.1389299	0.1292719		-7.0	20
Methyl methacrylate	A	80.000	76.700	8.339718E-02	0.0799549		-4.1	20
Pentachloroethane	A	16.000	16.770	0.5366092	0.5625019		4.8	20
Propionitrile	A	400.00	402.60	2.300947E-02	2.315892E-02		0.6	20
Tetrahydrofuran	A	320.00	301.97	5.139228E-02	4.849724E-02		-5.6	20



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CONTINUING CALIBRATION CHECK**EPA-8260B**

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>09FEB03.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702156</u>	Injection Date:	<u>02/09/17</u>
Lab Sample ID:	<u>1702156-CCV6</u>	Injection Time:	<u>05:37</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Vinyl acetate	A	160.00	150.11	0.6344058	0.5951861		-6.2	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits for beginning CCVs. For ending CCVs, limit is 50.

(1): Cal Type (Calibration Type): A = Average; L = Linear Regression; Q = Quadratic Regression

(2): % Diff (of Response Factors) reported when Cal Type = A; %Drift (of Conc) reported when Cal Type = L or Q



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Project Manager: Kelli Miller

CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>26JAN15.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702254</u>	Injection Date:	<u>01/26/17</u>
Lab Sample ID:	<u>1702254-ICV1</u>	Injection Time:	<u>19:35</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Benzene	A	25.000	24.520	1.889545	1.853263		-1.9	20
Bromobenzene	A	25.000	26.750	1.179324	1.261962		7.0	20
Bromochloromethane	A	25.000	27.870	0.1547174	0.1724858		11.5	20
Bromodichloromethane	A	25.000	26.320	0.3292103	0.3466539		5.3	20
Bromoform	A	25.000	29.540	0.3506939	0.4143899	0.1	18.2	20
Bromomethane	A	25.000	25.400	0.3180084	0.323081		1.6	20
n-Butylbenzene	A	25.000	24.450	3.493597	3.416282		-2.2	20
sec-Butylbenzene	A	25.000	22.320	5.379312	4.803427		-10.7	20
tert-Butylbenzene	A	25.000	24.540	3.852201	3.780801		-1.9	20
Carbon tetrachloride	A	25.000	24.550	0.4688551	0.4604308		-1.8	20
Chlorobenzene	A	25.000	25.550	2.978027	3.04388	0.3	2.2	20
Chloroethane	A	25.000	25.010	0.3902835	0.3904325		0.04	20
Chloroform	A	25.000	25.080	0.7548469	0.7572197		0.3	20
Chloromethane	L	25.000	21.450	0.6989857	0.5449247	0.1	-14.2	20
2-Chlorotoluene	A	25.000	25.230	3.666018	3.699401		0.9	20
4-Chlorotoluene	A	25.000	25.250	3.285453	3.318671		1.0	20
Dibromochloromethane	A	25.000	28.210	0.1708407	0.1927603		12.8	20
1,2-Dibromo-3-chloropropane	L	25.000	26.780	0.0666406	0.0808198		7.1	20
1,2-Dibromoethane	A	25.000	28.160	0.1390115	0.1565905		12.6	20
Dibromomethane	A	25.000	25.600	0.1132441	0.1159592		2.4	20
1,2-Dichlorobenzene	A	25.000	25.120	1.693334	1.701651		0.5	20
1,3-Dichlorobenzene	A	25.000	23.440	2.068389	1.939285		-6.2	20
1,4-Dichlorobenzene	A	25.000	25.950	1.916207	1.989058		3.8	20



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CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>26JAN15.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702254</u>	Injection Date:	<u>01/26/17</u>
Lab Sample ID:	<u>1702254-ICV1</u>	Injection Time:	<u>19:35</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Dichlorodifluoromethane	A	25.000	23.190	0.4765408	0.4420548		-7.2	20
1,1-Dichloroethane	A	25.000	25.000	1.030991	1.031141	0.1	0.01	20
1,2-Dichloroethane	A	25.000	26.060	0.438219	0.4568204		4.2	20
1,1-Dichloroethene	A	25.000	24.850	0.7766588	0.7719666		-0.6	20
cis-1,2-Dichloroethene	A	25.000	25.440	0.46668	0.474977		1.8	20
trans-1,2-Dichloroethene	A	25.000	23.910	0.4502706	0.4305847		-4.4	20
1,2-Dichloropropane	A	25.000	25.240	0.3723232	0.3758662		1.0	20
1,3-Dichloropropane	A	25.000	27.900	0.2667047	0.2976682		11.6	20
2,2-Dichloropropane	A	25.000	23.050	0.6461859	0.595668		-7.8	20
1,1-Dichloropropene	A	25.000	24.340	0.61317	0.5969539		-2.6	20
cis-1,3-Dichloropropene	A	25.000	25.890	0.436368	0.4519754		3.6	20
trans-1,3-Dichloropropene	A	25.000	27.510	0.3001727	0.3303126		10.0	20
Ethylbenzene	A	25.000	24.810	1.699115	1.686003		-0.8	20
Hexachlorobutadiene	A	25.000	22.520	0.8012975	0.7218586		-9.9	20
Isopropylbenzene	A	25.000	23.670	5.188549	4.913541		-5.3	20
p-Isopropyltoluene	A	25.000	22.960	4.064913	3.733001		-8.2	20
Methylene chloride	L	25.000	27.090	0.601454	0.4144394		8.4	20
Methyl t-butyl ether	A	25.000	29.040	0.6285989	0.7300879		16.1	20
Naphthalene	A	25.000	28.850	1.162765	1.341925		15.4	20
n-Propylbenzene	A	25.000	23.210	5.959786	5.533521		-7.2	20
Styrene	A	25.000	26.030	2.90027	3.020175		4.1	20
1,1,1,2-Tetrachloroethane	A	25.000	25.800	0.9261768	0.9556971		3.2	20
1,1,2,2-Tetrachloroethane	A	25.000	28.950	0.555952	0.6436956	0.3	15.8	20



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CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>26JAN15.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702254</u>	Injection Date:	<u>01/26/17</u>
Lab Sample ID:	<u>1702254-ICV1</u>	Injection Time:	<u>19:35</u>

COMPOUND	(1) _{CAL} TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Tetrachloroethene	A	25.000	23.430	0.3412463	0.3197576		-6.3	20
Toluene	A	25.000	24.190	0.7797766	0.7546079		-3.2	20
1,2,3-Trichlorobenzene	A	25.000	26.710	1.02527	1.095334		6.8	20
1,2,4-Trichlorobenzene	A	25.000	26.280	1.194842	1.256226		5.1	20
1,1,1-Trichloroethane	A	25.000	24.320	0.6397625	0.6223499		-2.7	20
1,1,2-Trichloroethane	A	25.000	28.140	0.1533095	0.1725615		12.6	20
Trichloroethene	A	25.000	25.380	0.3255704	0.3305227		1.5	20
Trichlorofluoromethane	A	25.000	23.360	0.5867905	0.5482351		-6.6	20
1,2,3-Trichloropropane	L	25.000	29.760	0.105337	0.1291837		19.0	20
1,1,2-Trichloro-1,2,2-trifluoroethane	A	25.000	22.390	0.4183029	0.3745928		-10.4	20
1,2,4-Trimethylbenzene	A	25.000	24.970	3.597754	3.593467		-0.1	20
1,3,5-Trimethylbenzene	A	25.000	23.180	3.970515	3.680896		-7.3	20
Vinyl chloride	A	25.000	20.170	0.5958562	0.4807637		-19.3	20
Total Xylenes	A	75.000	74.270	1.988127	1.96886		-1.0	20
p- & m-Xylenes	A	50.000	49.530	2.011739	1.992895		-0.9	20
o-Xylene	A	25.000	24.740	1.940902	1.920791		-1.0	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits for beginning CCVs. For ending CCVs, limit is 50.

(1): Cal Type (Calibration Type): A = Average; L = Linear Regression; Q = Quadratic Regression

(2): % Diff (of Response Factors) reported when Cal Type = A; %Drift (of Conc) reported when Cal Type = L or Q



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Project Manager: Kelli Miller

CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>07FEB15.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702254</u>	Injection Date:	<u>02/07/17</u>
Lab Sample ID:	<u>1702254-ICV2</u>	Injection Time:	<u>12:46</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Acetone	A	320.00	315.03	0.044841	4.414517E-02		-1.6	20
Acetonitrile	L	160.00	201.66	1.965066E-02	2.067974E-02		26.0	20 *
Allyl chloride	A	32.000	31.180	1.114402	1.08574		-2.6	20
t-Amyl Methyl ether	A	16.000	15.090	0.7281162	0.6866905		-5.7	20
Benzyl chloride	A	32.000	31.760	0.8656921	0.8592213		-0.7	20
t-Butyl alcohol	A	800.00	811.29	1.280474E-02	1.298544E-02		1.4	20
Carbon disulfide	A	32.000	32.220	1.344744	1.354047		0.7	20
Chloroprene	A	32.000	31.360	1.000946	0.9807911		-2.0	20
Diisopropyl ether	A	16.000	15.550	0.3174881	0.3085884		-2.8	20
Ethyl t-butyl ether	A	16.000	15.050	1.311089	1.233435		-5.9	20
2-Hexanone	Q	320.00	312.86	0.0923643	8.615645E-02		-2.2	20
Methyl ethyl ketone	A	160.00	154.88	0.0879739	0.0851614		-3.2	20
Methyl isobutyl ketone	A	160.00	147.91	0.1389299	0.12843		-7.6	20
Vinyl acetate	A	160.00	147.71	0.6344058	0.5856918		-7.7	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits for beginning CCVs. For ending CCVs, limit is 50.

(1): Cal Type (Calibration Type): A = Average; L = Linear Regression; Q = Quadratic Regression

(2): % Diff (of Response Factors) reported when Cal Type = A; %Drift (of Conc) reported when Cal Type = L or Q



AMEC Environmental & Infrastructure
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San Diego, CA 92123

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Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>09FEB36.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702254</u>	Injection Date:	<u>02/09/17</u>
Lab Sample ID:	<u>1702254-CCV3</u>	Injection Time:	<u>18:51</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Benzene	A	25.000	24.890	1.889545	1.880904		-0.5	20
Bromobenzene	A	25.000	25.410	1.179324	1.198471		1.6	20
Bromochloromethane	A	25.000	27.140	0.1547174	0.1679844		8.6	20
Bromodichloromethane	A	25.000	25.350	0.3292103	0.3337671		1.4	20
Bromoform	A	25.000	25.470	0.3506939	0.3572578	0.1	1.9	20
Bromomethane	A	25.000	18.160	0.3180084	0.2310224		-27.4	20 *
n-Butylbenzene	A	25.000	25.690	3.493597	3.590694		2.8	20
sec-Butylbenzene	A	25.000	23.490	5.379312	5.05481		-6.0	20
tert-Butylbenzene	A	25.000	23.530	3.852201	3.626184		-5.9	20
Carbon tetrachloride	A	25.000	25.160	0.4688551	0.4719078		0.7	20
Chlorobenzene	A	25.000	24.490	2.978027	2.917112	0.3	-2.0	20
Chloroethane	A	25.000	25.380	0.3902835	0.3962819		1.5	20
Chloroform	A	25.000	25.320	0.7548469	0.7645921		1.3	20
Chloromethane	L	25.000	25.100	0.6989857	0.6345273	0.1	0.4	20
2-Chlorotoluene	A	25.000	24.390	3.666018	3.57684		-2.4	20
4-Chlorotoluene	A	25.000	23.920	3.285453	3.143769		-4.3	20
Dibromochloromethane	A	25.000	25.710	0.1708407	0.1756974		2.8	20
1,2-Dibromo-3-chloropropane	L	25.000	24.730	0.0666406	0.0746605		-1.1	20
1,2-Dibromoethane	A	25.000	26.180	0.1390115	0.1455764		4.7	20
Dibromomethane	A	25.000	23.870	0.1132441	0.1081351		-4.5	20
1,2-Dichlorobenzene	A	25.000	23.920	1.693334	1.620404		-4.3	20
1,3-Dichlorobenzene	A	25.000	22.340	2.068389	1.848157		-10.6	20
1,4-Dichlorobenzene	A	25.000	24.060	1.916207	1.843792		-3.8	20



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>09FEB36.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702254</u>	Injection Date:	<u>02/09/17</u>
Lab Sample ID:	<u>1702254-CCV3</u>	Injection Time:	<u>18:51</u>

COMPOUND	(1) _{CAL} TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Dichlorodifluoromethane	A	25.000	23.400	0.4765408	0.44596		-6.4	20
1,1-Dichloroethane	A	25.000	24.650	1.030991	1.016432	0.1	-1.4	20
1,2-Dichloroethane	A	25.000	24.990	0.438219	0.4379591		-0.06	20
1,1-Dichloroethene	A	25.000	25.210	0.7766588	0.7833189		0.9	20
cis-1,2-Dichloroethene	A	25.000	25.300	0.46668	0.4722396		1.2	20
trans-1,2-Dichloroethene	A	25.000	24.730	0.4502706	0.4454289		-1.1	20
1,2-Dichloropropane	A	25.000	24.690	0.3723232	0.3677565		-1.2	20
1,3-Dichloropropane	A	25.000	25.460	0.2667047	0.2716389		1.9	20
2,2-Dichloropropane	A	25.000	24.210	0.6461859	0.6257306		-3.2	20
1,1-Dichloropropene	A	25.000	25.220	0.61317	0.6185372		0.9	20
cis-1,3-Dichloropropene	A	25.000	23.840	0.436368	0.4161348		-4.6	20
trans-1,3-Dichloropropene	A	25.000	24.830	0.3001727	0.2980978		-0.7	20
Ethylbenzene	A	25.000	24.750	1.699115	1.682198		-1.0	20
Hexachlorobutadiene	A	25.000	25.510	0.8012975	0.8177451		2.1	20
Isopropylbenzene	A	25.000	24.010	5.188549	4.982249		-4.0	20
p-Isopropyltoluene	A	25.000	24.050	4.064913	3.91075		-3.8	20
Methylene chloride	L	25.000	26.180	0.601454	0.4018048		4.7	20
Methyl t-butyl ether	A	25.000	26.480	0.6285989	0.6658044		5.9	20
Naphthalene	A	25.000	28.170	1.162765	1.310242		12.7	20
n-Propylbenzene	A	25.000	23.760	5.959786	5.664384		-5.0	20
Styrene	A	25.000	26.010	2.90027	3.017717		4.0	20
1,1,1,2-Tetrachloroethane	A	25.000	24.380	0.9261768	0.9031667		-2.5	20
1,1,2,2-Tetrachloroethane	A	25.000	25.300	0.555952	0.562684	0.3	1.2	20



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CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>09FEB36.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702254</u>	Injection Date:	<u>02/09/17</u>
Lab Sample ID:	<u>1702254-CCV3</u>	Injection Time:	<u>18:51</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Tetrachloroethene	A	25.000	25.550	0.3412463	0.3487952		2.2	20
Toluene	A	25.000	24.340	0.7797766	0.759221		-2.6	20
1,2,3-Trichlorobenzene	A	25.000	28.000	1.02527	1.1483		12.0	20
1,2,4-Trichlorobenzene	A	25.000	27.840	1.194842	1.330606		11.4	20
1,1,1-Trichloroethane	A	25.000	25.550	0.6397625	0.6537181		2.2	20
1,1,2-Trichloroethane	A	25.000	25.520	0.1533095	0.1564777		2.1	20
Trichloroethene	A	25.000	26.240	0.3255704	0.3416784		4.9	20
Trichlorofluoromethane	A	25.000	25.470	0.5867905	0.5977766		1.9	20
1,2,3-Trichloropropane	L	25.000	26.740	0.105337	0.116855		7.0	20
1,1,2-Trichloro-1,2,2-trifluoroethane	A	25.000	24.920	0.4183029	0.4169003		-0.3	20
1,2,4-Trimethylbenzene	A	25.000	24.110	3.597754	3.469029		-3.6	20
1,3,5-Trimethylbenzene	A	25.000	23.100	3.970515	3.669017		-7.6	20
Vinyl chloride	A	25.000	26.460	0.5958562	0.6305861		5.8	20
Total Xylenes	A	75.000	75.170	1.988127	1.992757		0.2	20
p- & m-Xylenes	A	50.000	50.140	2.011739	2.017465		0.3	20
o-Xylene	A	25.000	25.030	1.940902	1.943341		0.1	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits for beginning CCVs. For ending CCVs, limit is 50.

(1): Cal Type (Calibration Type): A = Average; L = Linear Regression; Q = Quadratic Regression

(2): % Diff (of Response Factors) reported when Cal Type = A; %Drift (of Conc) reported when Cal Type = L or Q



AMEC Environmental & Infrastructure
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Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>09FEB37.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702254</u>	Injection Date:	<u>02/09/17</u>
Lab Sample ID:	<u>1702254-CCV4</u>	Injection Time:	<u>19:14</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Acetone	A	320.00	361.94	0.044841	5.071756E-02		13.1	20
Acetonitrile	L	160.00	238.04	1.965066E-02	2.413655E-02		48.8	20 *
Allyl chloride	A	32.000	31.350	1.114402	1.091767		-2.0	20
t-Amyl Methyl ether	A	16.000	15.830	0.7281162	0.7202977		-1.1	20
Benzyl chloride	A	32.000	26.040	0.8656921	0.7044824		-18.6	20
t-Butyl alcohol	A	800.00	833.82	1.280474E-02	1.334613E-02		4.2	20
Carbon disulfide	A	32.000	33.200	1.344744	1.395019		3.7	20
Chloroprene	A	32.000	32.080	1.000946	1.003377		0.2	20
Diisopropyl ether	A	16.000	16.750	0.3174881	0.3323942		4.7	20
Ethyl t-butyl ether	A	16.000	15.240	1.311089	1.249001		-4.7	20
2-Hexanone	Q	320.00	311.65	0.0923643	8.587705E-02		-2.6	20
Methyl ethyl ketone	A	160.00	179.65	0.0879739	9.877907E-02		12.3	20
Methyl isobutyl ketone	A	160.00	152.73	0.1389299	0.1326189		-4.5	20
Vinyl acetate	A	160.00	117.82	0.6344058	0.4671516		-26.4	20 *

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits for beginning CCVs. For ending CCVs, limit is 50.

(1): Cal Type (Calibration Type): A = Average; L = Linear Regression; Q = Quadratic Regression

(2): % Diff (of Response Factors) reported when Cal Type = A; %Drift (of Conc) reported when Cal Type = L or Q



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Project: Alameda
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Project Manager: Kelli Miller

CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>10FEB02.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702254</u>	Injection Date:	<u>02/10/17</u>
Lab Sample ID:	<u>1702254-CCV5</u>	Injection Time:	<u>06:27</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Benzene	A	25.000	25.100	1.889545	1.897065		0.4	20
Bromobenzene	A	25.000	25.940	1.179324	1.223891		3.8	20
Bromochloromethane	A	25.000	26.450	0.1547174	0.1637197		5.8	20
Bromodichloromethane	A	25.000	25.790	0.3292103	0.3396615		3.2	20
Bromoform	A	25.000	25.910	0.3506939	0.3634786	0.1	3.6	20
Bromomethane	A	25.000	16.480	0.3180084	0.2096832		-34.1	20 *
n-Butylbenzene	A	25.000	26.550	3.493597	3.710435		6.2	20
sec-Butylbenzene	A	25.000	25.000	5.379312	5.379252		-0.001	20
tert-Butylbenzene	A	25.000	24.820	3.852201	3.825212		-0.7	20
Carbon tetrachloride	A	25.000	28.020	0.4688551	0.5255107		12.1	20
Chlorobenzene	A	25.000	25.700	2.978027	3.061192	0.3	2.8	20
Chloroethane	A	25.000	26.540	0.3902835	0.4142865		6.2	20
Chloroform	A	25.000	25.840	0.7548469	0.7802905		3.4	20
Chloromethane	L	25.000	28.650	0.6989857	0.7214061	0.1	14.6	20
2-Chlorotoluene	A	25.000	25.790	3.666018	3.782278		3.2	20
4-Chlorotoluene	A	25.000	25.180	3.285453	3.309467		0.7	20
Dibromochloromethane	A	25.000	26.420	0.1708407	0.1805393		5.7	20
1,2-Dibromo-3-chloropropane	L	25.000	22.430	0.0666406	6.776286E-02		-10.3	20
1,2-Dibromoethane	A	25.000	25.440	0.1390115	0.1414471		1.8	20
Dibromomethane	A	25.000	24.320	0.1132441	0.1101824		-2.7	20
1,2-Dichlorobenzene	A	25.000	23.980	1.693334	1.62436		-4.1	20
1,3-Dichlorobenzene	A	25.000	23.930	2.068389	1.979812		-4.3	20
1,4-Dichlorobenzene	A	25.000	25.420	1.916207	1.948193		1.7	20



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CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>10FEB02.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702254</u>	Injection Date:	<u>02/10/17</u>
Lab Sample ID:	<u>1702254-CCV5</u>	Injection Time:	<u>06:27</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Dichlorodifluoromethane	A	25.000	27.180	0.4765408	0.518137		8.7	20
1,1-Dichloroethane	A	25.000	24.930	1.030991	1.028065	0.1	-0.3	20
1,2-Dichloroethane	A	25.000	25.770	0.438219	0.4518011		3.1	20
1,1-Dichloroethene	A	25.000	27.220	0.7766588	0.8455953		8.9	20
cis-1,2-Dichloroethene	A	25.000	26.050	0.466668	0.4863274		4.2	20
trans-1,2-Dichloroethene	A	25.000	26.210	0.4502706	0.4720388		4.8	20
1,2-Dichloropropane	A	25.000	24.090	0.3723232	0.3587426		-3.6	20
1,3-Dichloropropane	A	25.000	24.990	0.2667047	0.2666359		-0.03	20
2,2-Dichloropropane	A	25.000	28.420	0.6461859	0.7344553		13.7	20
1,1-Dichloropropene	A	25.000	26.930	0.61317	0.66039		7.7	20
cis-1,3-Dichloropropene	A	25.000	24.760	0.436368	0.4321719		-1.0	20
trans-1,3-Dichloropropene	A	25.000	26.020	0.3001727	0.3124111		4.1	20
Ethylbenzene	A	25.000	26.140	1.699115	1.776889		4.6	20
Hexachlorobutadiene	A	25.000	29.420	0.8012975	0.9431199		17.7	20
Isopropylbenzene	A	25.000	25.210	5.188549	5.231826		0.8	20
p-Isopropyltoluene	A	25.000	25.640	4.064913	4.168734		2.6	20
Methylene chloride	L	25.000	25.800	0.601454	0.3965025		3.2	20
Methyl t-butyl ether	A	25.000	26.140	0.6285989	0.6572272		4.6	20
Naphthalene	A	25.000	26.970	1.162765	1.254176		7.9	20
n-Propylbenzene	A	25.000	24.660	5.959786	5.877738		-1.4	20
Styrene	A	25.000	26.360	2.90027	3.05833		5.4	20
1,1,1,2-Tetrachloroethane	A	25.000	25.050	0.9261768	0.9281508		0.2	20
1,1,2,2-Tetrachloroethane	A	25.000	25.260	0.555952	0.5616699	0.3	1.0	20



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CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>10FEB02.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702254</u>	Injection Date:	<u>02/10/17</u>
Lab Sample ID:	<u>1702254-CCV5</u>	Injection Time:	<u>06:27</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Tetrachloroethene	A	25.000	28.590	0.3412463	0.3902644		14.4	20
Toluene	A	25.000	25.460	0.7797766	0.7940035		1.8	20
1,2,3-Trichlorobenzene	A	25.000	28.170	1.02527	1.155074		12.7	20
1,2,4-Trichlorobenzene	A	25.000	28.560	1.194842	1.364806		14.2	20
1,1,1-Trichloroethane	A	25.000	26.980	0.6397625	0.6903773		7.9	20
1,1,2-Trichloroethane	A	25.000	25.060	0.1533095	0.153673		0.2	20
Trichloroethene	A	25.000	26.970	0.3255704	0.3512447		7.9	20
Trichlorofluoromethane	A	25.000	29.370	0.5867905	0.6894156		17.5	20
1,2,3-Trichloropropane	L	25.000	28.080	0.105337	0.1223044		12.3	20
1,1,2-Trichloro-1,2,2-trifluoroethane	A	25.000	26.630	0.4183029	0.4455427		6.5	20
1,2,4-Trimethylbenzene	A	25.000	25.800	3.597754	3.71242		3.2	20
1,3,5-Trimethylbenzene	A	25.000	24.060	3.970515	3.821059		-3.8	20
Vinyl chloride	A	25.000	29.470	0.5958562	0.7024753		17.9	20
Total Xylenes	A	75.000	77.380	1.988127	2.051539		3.2	20
p- & m-Xylenes	A	50.000	51.950	2.011739	2.090293		3.9	20
o-Xylene	A	25.000	25.430	1.940902	1.974032		1.7	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits for beginning CCVs. For ending CCVs, limit is 50.

(1): Cal Type (Calibration Type): A = Average; L = Linear Regression; Q = Quadratic Regression

(2): % Diff (of Response Factors) reported when Cal Type = A; %Drift (of Conc) reported when Cal Type = L or Q



AMEC Environmental & Infrastructure
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Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>10FEB03.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702254</u>	Injection Date:	<u>02/10/17</u>
Lab Sample ID:	<u>1702254-CCV6</u>	Injection Time:	<u>06:50</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Acetone	A	320.00	375.92	0.044841	5.267717E-02		17.5	20
Acetonitrile	L	160.00	230.99	1.965066E-02	2.346677E-02		44.4	20 *
Allyl chloride	A	32.000	32.280	1.114402	1.124265		0.9	20
t-Amyl Methyl ether	A	16.000	16.210	0.7281162	0.7375446		1.3	20
Benzyl chloride	A	32.000	31.310	0.8656921	0.8471597		-2.1	20
t-Butyl alcohol	A	800.00	873.30	1.280474E-02	1.397802E-02		9.2	20
Carbon disulfide	A	32.000	32.820	1.344744	1.379186		2.6	20
Chloroprene	A	32.000	32.610	1.000946	1.019895		1.9	20
Diisopropyl ether	A	16.000	16.780	0.3174881	0.3329841		4.9	20
Ethyl t-butyl ether	A	16.000	15.230	1.311089	1.247805		-4.8	20
2-Hexanone	Q	320.00	312.72	0.0923643	8.612243E-02		-2.3	20
Methyl ethyl ketone	A	160.00	171.15	0.0879739	9.410188E-02		7.0	20
Methyl isobutyl ketone	A	160.00	156.95	0.1389299	0.136279		-1.9	20
Vinyl acetate	A	160.00	144.87	0.6344058	0.574405		-9.5	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits for beginning CCVs. For ending CCVs, limit is 50.

(1): Cal Type (Calibration Type): A = Average; L = Linear Regression; Q = Quadratic Regression

(2): % Diff (of Response Factors) reported when Cal Type = A; %Drift (of Conc) reported when Cal Type = L or Q



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>26JAN15.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702340</u>	Injection Date:	<u>01/26/17</u>
Lab Sample ID:	<u>1702340-ICV1</u>	Injection Time:	<u>19:35</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Benzene	A	25.000	24.520	1.889545	1.853263		-1.9	20
Bromobenzene	A	25.000	26.750	1.179324	1.261962		7.0	20
Bromochloromethane	A	25.000	27.870	0.1547174	0.1724858		11.5	20
Bromodichloromethane	A	25.000	26.320	0.3292103	0.3466539		5.3	20
Bromoform	A	25.000	29.540	0.3506939	0.4143899	0.1	18.2	20
Bromomethane	A	25.000	25.400	0.3180084	0.323081		1.6	20
n-Butylbenzene	A	25.000	24.450	3.493597	3.416282		-2.2	20
sec-Butylbenzene	A	25.000	22.320	5.379312	4.803427		-10.7	20
tert-Butylbenzene	A	25.000	24.540	3.852201	3.780801		-1.9	20
Carbon tetrachloride	A	25.000	24.550	0.4688551	0.4604308		-1.8	20
Chlorobenzene	A	25.000	25.550	2.978027	3.04388	0.3	2.2	20
Chloroethane	A	25.000	25.010	0.3902835	0.3904325		0.04	20
Chloroform	A	25.000	25.080	0.7548469	0.7572197		0.3	20
Chloromethane	L	25.000	21.450	0.6989857	0.5449247	0.1	-14.2	20
2-Chlorotoluene	A	25.000	25.230	3.666018	3.699401		0.9	20
4-Chlorotoluene	A	25.000	25.250	3.285453	3.318671		1.0	20
Dibromochloromethane	A	25.000	28.210	0.1708407	0.1927603		12.8	20
1,2-Dibromo-3-chloropropane	L	25.000	26.780	0.0666406	0.0808198		7.1	20
1,2-Dibromoethane	A	25.000	28.160	0.1390115	0.1565905		12.6	20
Dibromomethane	A	25.000	25.600	0.1132441	0.1159592		2.4	20
1,2-Dichlorobenzene	A	25.000	25.120	1.693334	1.701651		0.5	20
1,3-Dichlorobenzene	A	25.000	23.440	2.068389	1.939285		-6.2	20
1,4-Dichlorobenzene	A	25.000	25.950	1.916207	1.989058		3.8	20



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CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>26JAN15.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702340</u>	Injection Date:	<u>01/26/17</u>
Lab Sample ID:	<u>1702340-ICV1</u>	Injection Time:	<u>19:35</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Dichlorodifluoromethane	A	25.000	23.190	0.4765408	0.4420548		-7.2	20
1,1-Dichloroethane	A	25.000	25.000	1.030991	1.031141	0.1	0.01	20
1,2-Dichloroethane	A	25.000	26.060	0.438219	0.4568204		4.2	20
1,1-Dichloroethene	A	25.000	24.850	0.7766588	0.7719666		-0.6	20
cis-1,2-Dichloroethene	A	25.000	25.440	0.46668	0.474977		1.8	20
trans-1,2-Dichloroethene	A	25.000	23.910	0.4502706	0.4305847		-4.4	20
1,2-Dichloropropane	A	25.000	25.240	0.3723232	0.3758662		1.0	20
1,3-Dichloropropane	A	25.000	27.900	0.2667047	0.2976682		11.6	20
2,2-Dichloropropane	A	25.000	23.050	0.6461859	0.595668		-7.8	20
1,1-Dichloropropene	A	25.000	24.340	0.61317	0.5969539		-2.6	20
cis-1,3-Dichloropropene	A	25.000	25.890	0.436368	0.4519754		3.6	20
trans-1,3-Dichloropropene	A	25.000	27.510	0.3001727	0.3303126		10.0	20
Ethylbenzene	A	25.000	24.810	1.699115	1.686003		-0.8	20
Hexachlorobutadiene	A	25.000	22.520	0.8012975	0.7218586		-9.9	20
Isopropylbenzene	A	25.000	23.670	5.188549	4.913541		-5.3	20
p-Isopropyltoluene	A	25.000	22.960	4.064913	3.733001		-8.2	20
Methylene chloride	L	25.000	27.090	0.601454	0.4144394		8.4	20
Methyl t-butyl ether	A	25.000	29.040	0.6285989	0.7300879		16.1	20
Naphthalene	A	25.000	28.850	1.162765	1.341925		15.4	20
n-Propylbenzene	A	25.000	23.210	5.959786	5.533521		-7.2	20
Styrene	A	25.000	26.030	2.90027	3.020175		4.1	20
1,1,1,2-Tetrachloroethane	A	25.000	25.800	0.9261768	0.9556971		3.2	20
1,1,2,2-Tetrachloroethane	A	25.000	28.950	0.555952	0.6436956	0.3	15.8	20



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CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>26JAN15.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702340</u>	Injection Date:	<u>01/26/17</u>
Lab Sample ID:	<u>1702340-ICV1</u>	Injection Time:	<u>19:35</u>

COMPOUND	(1) _{CAL} TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Tetrachloroethene	A	25.000	23.430	0.3412463	0.3197576		-6.3	20
Toluene	A	25.000	24.190	0.7797766	0.7546079		-3.2	20
1,2,3-Trichlorobenzene	A	25.000	26.710	1.02527	1.095334		6.8	20
1,2,4-Trichlorobenzene	A	25.000	26.280	1.194842	1.256226		5.1	20
1,1,1-Trichloroethane	A	25.000	24.320	0.6397625	0.6223499		-2.7	20
1,1,2-Trichloroethane	A	25.000	28.140	0.1533095	0.1725615		12.6	20
Trichloroethene	A	25.000	25.380	0.3255704	0.3305227		1.5	20
Trichlorofluoromethane	A	25.000	23.360	0.5867905	0.5482351		-6.6	20
1,2,3-Trichloropropane	L	25.000	29.760	0.105337	0.1291837		19.0	20
1,1,2-Trichloro-1,2,2-trifluoroethane	A	25.000	22.390	0.4183029	0.3745928		-10.4	20
1,2,4-Trimethylbenzene	A	25.000	24.970	3.597754	3.593467		-0.1	20
1,3,5-Trimethylbenzene	A	25.000	23.180	3.970515	3.680896		-7.3	20
Vinyl chloride	A	25.000	20.170	0.5958562	0.4807637		-19.3	20
Total Xylenes	A	75.000	74.270	1.988127	1.96886		-1.0	20
p- & m-Xylenes	A	50.000	49.530	2.011739	1.992895		-0.9	20
o-Xylene	A	25.000	24.740	1.940902	1.920791		-1.0	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits for beginning CCVs. For ending CCVs, limit is 50.

(1): Cal Type (Calibration Type): A = Average; L = Linear Regression; Q = Quadratic Regression

(2): % Diff (of Response Factors) reported when Cal Type = A; %Drift (of Conc) reported when Cal Type = L or Q



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CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>07FEB15.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702340</u>	Injection Date:	<u>02/07/17</u>
Lab Sample ID:	<u>1702340-ICV2</u>	Injection Time:	<u>12:46</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Acetone	A	320.00	315.03	0.044841	4.414517E-02		-1.6	20
Acetonitrile	L	160.00	201.66	1.965066E-02	2.067974E-02		26.0	20 *
Acrolein	A	200.00	186.42	0.0199267	1.857332E-02		-6.8	20
Acrylonitrile	A	80.000	81.340	6.371868E-02	6.478198E-02		1.7	20
Allyl chloride	A	32.000	31.180	1.114402	1.08574		-2.6	20
t-Amyl Methyl ether	A	16.000	15.090	0.7281162	0.6866905		-5.7	20
Benzyl chloride	A	32.000	31.760	0.8656921	0.8592213		-0.7	20
t-Butyl alcohol	A	800.00	811.29	1.280474E-02	1.298544E-02		1.4	20
Carbon disulfide	A	32.000	32.220	1.344744	1.354047		0.7	20
Chloroprene	A	32.000	31.360	1.000946	0.9807911		-2.0	20
Cyclohexane	A	25.000	25.810	1.086285	1.121441		3.2	20
Cyclohexanone	A	400.00	389.65	4.458125E-02	4.342801E-02		-2.6	20
trans-1,4-Dichloro-2-butene	A	80.000	76.690	0.1551532	0.1487324		-4.1	20
Diisopropyl ether	A	16.000	15.550	0.3174881	0.3085884		-2.8	20
Ethanol	A	4000.0	4721.0	1.543484E-03	1.821703E-03		18.0	20
Ethyl methacrylate	A	80.000	77.570	0.1775957	0.1721904		-3.0	20
Ethyl t-butyl ether	A	16.000	15.050	1.311089	1.233435		-5.9	20
2-Hexanone	Q	320.00	312.86	0.0923643	8.615645E-02		-2.2	20
Isobutanol	A	400.00	428.37	6.527947E-03	6.991015E-03		7.1	20
Methacrylonitrile	A	160.00	158.40	6.173201E-02	6.111602E-02		-1.0	20
Methylcyclohexane	A	25.000	24.850	0.617876	0.6141882		-0.6	20
Methyl ethyl ketone	A	160.00	154.88	0.0879739	0.0851614		-3.2	20
Methyl iodide	A	32.000	32.140	0.5848188	0.5874023		0.4	20



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CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>07FEB15.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702340</u>	Injection Date:	<u>02/07/17</u>
Lab Sample ID:	<u>1702340-ICV2</u>	Injection Time:	<u>12:46</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Methyl isobutyl ketone	A	160.00	147.91	0.1389299	0.12843		-7.6	20
Methyl methacrylate	A	80.000	76.700	8.339718E-02	7.995216E-02		-4.1	20
Propionitrile	A	400.00	409.66	2.300947E-02	2.356491E-02		2.4	20
Vinyl acetate	A	160.00	147.71	0.6344058	0.5856918		-7.7	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits for beginning CCVs. For ending CCVs, limit is 50.

(1): Cal Type (Calibration Type): A = Average; L = Linear Regression; Q = Quadratic Regression

(2): % Diff (of Response Factors) reported when Cal Type = A; %Drift (of Conc) reported when Cal Type = L or Q



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EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>10FEB02.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702340</u>	Injection Date:	<u>02/10/17</u>
Lab Sample ID:	<u>1702340-CCV1</u>	Injection Time:	<u>06:27</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Benzene	A	25.000	25.100	1.889545	1.897065		0.4	20
Bromobenzene	A	25.000	25.940	1.179324	1.223891		3.8	20
Bromochloromethane	A	25.000	26.450	0.1547174	0.1637197		5.8	20
Bromodichloromethane	A	25.000	25.790	0.3292103	0.3396615		3.2	20
Bromoform	A	25.000	25.910	0.3506939	0.3634786	0.1	3.6	20
Bromomethane	A	25.000	16.480	0.3180084	0.2096832		-34.1	20 *
n-Butylbenzene	A	25.000	26.550	3.493597	3.710435		6.2	20
sec-Butylbenzene	A	25.000	25.000	5.379312	5.379252		-0.001	20
tert-Butylbenzene	A	25.000	24.820	3.852201	3.825212		-0.7	20
Carbon tetrachloride	A	25.000	28.020	0.4688551	0.5255107		12.1	20
Chlorobenzene	A	25.000	25.700	2.978027	3.061192	0.3	2.8	20
Chloroethane	A	25.000	26.540	0.3902835	0.4142865		6.2	20
Chloroform	A	25.000	25.840	0.7548469	0.7802905		3.4	20
Chloromethane	L	25.000	28.650	0.6989857	0.7214061	0.1	14.6	20
2-Chlorotoluene	A	25.000	25.790	3.666018	3.782278		3.2	20
4-Chlorotoluene	A	25.000	25.180	3.285453	3.309467		0.7	20
Dibromochloromethane	A	25.000	26.420	0.1708407	0.1805393		5.7	20
1,2-Dibromo-3-chloropropane	L	25.000	22.430	0.0666406	6.776286E-02		-10.3	20
1,2-Dibromoethane	A	25.000	25.440	0.1390115	0.1414471		1.8	20
Dibromomethane	A	25.000	24.320	0.1132441	0.1101824		-2.7	20
1,2-Dichlorobenzene	A	25.000	23.980	1.693334	1.62436		-4.1	20
1,3-Dichlorobenzene	A	25.000	23.930	2.068389	1.979812		-4.3	20
1,4-Dichlorobenzene	A	25.000	25.420	1.916207	1.948193		1.7	20



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EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>10FEB02.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702340</u>	Injection Date:	<u>02/10/17</u>
Lab Sample ID:	<u>1702340-CCV1</u>	Injection Time:	<u>06:27</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Dichlorodifluoromethane	A	25.000	27.180	0.4765408	0.518137		8.7	20
1,1-Dichloroethane	A	25.000	24.930	1.030991	1.028065	0.1	-0.3	20
1,2-Dichloroethane	A	25.000	25.770	0.438219	0.4518011		3.1	20
1,1-Dichloroethene	A	25.000	27.220	0.7766588	0.8455953		8.9	20
cis-1,2-Dichloroethene	A	25.000	26.050	0.46668	0.4863274		4.2	20
trans-1,2-Dichloroethene	A	25.000	26.210	0.4502706	0.4720388		4.8	20
1,2-Dichloropropane	A	25.000	24.090	0.3723232	0.3587426		-3.6	20
1,3-Dichloropropane	A	25.000	24.990	0.2667047	0.2666359		-0.03	20
2,2-Dichloropropane	A	25.000	28.420	0.6461859	0.7344553		13.7	20
1,1-Dichloropropene	A	25.000	26.930	0.61317	0.66039		7.7	20
cis-1,3-Dichloropropene	A	25.000	24.760	0.436368	0.4321719		-1.0	20
trans-1,3-Dichloropropene	A	25.000	26.020	0.3001727	0.3124111		4.1	20
Ethylbenzene	A	25.000	26.140	1.699115	1.776889		4.6	20
Hexachlorobutadiene	A	25.000	29.420	0.8012975	0.9431199		17.7	20
Isopropylbenzene	A	25.000	25.210	5.188549	5.231826		0.8	20
p-Isopropyltoluene	A	25.000	25.640	4.064913	4.168734		2.6	20
Methylene chloride	L	25.000	25.800	0.601454	0.3965025		3.2	20
Methyl t-butyl ether	A	25.000	26.140	0.6285989	0.6572272		4.6	20
Naphthalene	A	25.000	26.970	1.162765	1.254176		7.9	20
n-Propylbenzene	A	25.000	24.660	5.959786	5.877738		-1.4	20
Styrene	A	25.000	26.360	2.90027	3.05833		5.4	20
1,1,1,2-Tetrachloroethane	A	25.000	25.050	0.9261768	0.9281508		0.2	20
1,1,2,2-Tetrachloroethane	A	25.000	25.260	0.555952	0.5616699	0.3	1.0	20



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>10FEB02.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702340</u>	Injection Date:	<u>02/10/17</u>
Lab Sample ID:	<u>1702340-CCV1</u>	Injection Time:	<u>06:27</u>

COMPOUND	(1) _{CAL} TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Tetrachloroethene	A	25.000	28.590	0.3412463	0.3902644		14.4	20
Toluene	A	25.000	25.460	0.7797766	0.7940035		1.8	20
1,2,3-Trichlorobenzene	A	25.000	28.170	1.02527	1.155074		12.7	20
1,2,4-Trichlorobenzene	A	25.000	28.560	1.194842	1.364806		14.2	20
1,1,1-Trichloroethane	A	25.000	26.980	0.6397625	0.6903773		7.9	20
1,1,2-Trichloroethane	A	25.000	25.060	0.1533095	0.153673		0.2	20
Trichloroethene	A	25.000	26.970	0.3255704	0.3512447		7.9	20
Trichlorofluoromethane	A	25.000	29.370	0.5867905	0.6894156		17.5	20
1,2,3-Trichloropropane	L	25.000	28.080	0.105337	0.1223044		12.3	20
1,1,2-Trichloro-1,2,2-trifluoroethane	A	25.000	26.630	0.4183029	0.4455427		6.5	20
1,2,4-Trimethylbenzene	A	25.000	25.800	3.597754	3.71242		3.2	20
1,3,5-Trimethylbenzene	A	25.000	24.060	3.970515	3.821059		-3.8	20
Vinyl chloride	A	25.000	29.470	0.5958562	0.7024753		17.9	20
Total Xylenes	A	75.000	77.380	1.988127	2.051539		3.2	20
p- & m-Xylenes	A	50.000	51.950	2.011739	2.090293		3.9	20
o-Xylene	A	25.000	25.430	1.940902	1.974032		1.7	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits for beginning CCVs. For ending CCVs, limit is 50.

(1): Cal Type (Calibration Type): A = Average; L = Linear Regression; Q = Quadratic Regression

(2): % Diff (of Response Factors) reported when Cal Type = A; %Drift (of Conc) reported when Cal Type = L or Q



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Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>10FEB03.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702340</u>	Injection Date:	<u>02/10/17</u>
Lab Sample ID:	<u>1702340-CCV2</u>	Injection Time:	<u>06:50</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Acetone	A	320.00	375.92	0.044841	5.267717E-02		17.5	20
Acetonitrile	L	160.00	230.99	1.965066E-02	2.346677E-02		44.4	20 *
Acrolein	A	200.00	315.20	0.0199267	3.140485E-02		57.6	20 *
Acrylonitrile	A	80.000	89.160	6.371868E-02	7.101426E-02		11.4	20
Allyl chloride	A	32.000	32.280	1.114402	1.124265		0.9	20
t-Amyl Methyl ether	A	16.000	16.210	0.7281162	0.7375446		1.3	20
Benzyl chloride	A	32.000	31.310	0.8656921	0.8471597		-2.1	20
t-Butyl alcohol	A	800.00	873.30	1.280474E-02	1.397802E-02		9.2	20
Carbon disulfide	A	32.000	32.820	1.344744	1.379186		2.6	20
Chloroprene	A	32.000	32.610	1.000946	1.019895		1.9	20
Cyclohexane	A	25.000	27.870	1.086285	1.210956		11.5	20
Cyclohexanone	A	400.00	248.65	4.458125E-02	2.771304E-02		-37.8	20 *
trans-1,4-Dichloro-2-butene	A	80.000	66.650	0.1551532	0.1292609		-16.7	20
Diisopropyl ether	A	16.000	16.780	0.3174881	0.3329841		4.9	20
Ethanol	A	4000.0	5085.5	1.543484E-03	1.962351E-03		27.1	20 *
Ethyl methacrylate	A	80.000	80.750	0.1775957	0.179268		0.9	20
Ethyl t-butyl ether	A	16.000	15.230	1.311089	1.247805		-4.8	20
2-Hexanone	Q	320.00	312.72	0.0923643	8.612243E-02		-2.3	20
Isobutanol	A	400.00	443.16	6.527947E-03	7.232333E-03		10.8	20
Methacrylonitrile	A	160.00	161.19	6.173201E-02	6.219169E-02		0.7	20
Methylcyclohexane	A	25.000	25.910	0.617876	0.6403179		3.6	20
Methyl ethyl ketone	A	160.00	171.15	0.0879739	9.410188E-02		7.0	20
Methyl iodide	A	32.000	12.800	0.5848188	0.2339011		-60.0	20 *



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CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>10FEB03.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702340</u>	Injection Date:	<u>02/10/17</u>
Lab Sample ID:	<u>1702340-CCV2</u>	Injection Time:	<u>06:50</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Methyl isobutyl ketone	A	160.00	156.95	0.1389299	0.136279		-1.9	20
Methyl methacrylate	A	80.000	80.210	8.339718E-02	8.361147E-02		0.3	20
Propionitrile	A	400.00	437.53	2.300947E-02	2.516856E-02		9.4	20
Vinyl acetate	A	160.00	144.87	0.6344058	0.574405		-9.5	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits for beginning CCVs. For ending CCVs, limit is 50.

(1): Cal Type (Calibration Type): A = Average; L = Linear Regression; Q = Quadratic Regression

(2): % Diff (of Response Factors) reported when Cal Type = A; %Drift (of Conc) reported when Cal Type = L or Q



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CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>10FEB32.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702340</u>	Injection Date:	<u>02/10/17</u>
Lab Sample ID:	<u>1702340-CCV3</u>	Injection Time:	<u>18:22</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Benzene	A	25.000	24.170	1.889545	1.827131		-3.3	20
Bromobenzene	A	25.000	24.470	1.179324	1.154539		-2.1	20
Bromoform	A	25.000	23.940	0.3506939	0.3357587	0.1	-4.3	20
Bromochloromethane	A	25.000	25.830	0.1547174	0.1598253		3.3	20
Bromodichloromethane	A	25.000	23.640	0.3292103	0.3113372		-5.4	20
Bromomethane	A	25.000	17.710	0.3180084	0.2252989		-29.2	20 *
n-Butylbenzene	A	25.000	25.200	3.493597	3.521644		0.8	20
sec-Butylbenzene	A	25.000	23.610	5.379312	5.079755		-5.6	20
Chlorobenzene	A	25.000	24.990	2.978027	2.976912	0.3	-0.04	20
Chloroethane	A	25.000	25.580	0.3902835	0.3993116		2.3	20
Chloroform	A	25.000	24.300	0.7548469	0.7335762		-2.8	20
Chloromethane	L	25.000	25.740	0.6989857	0.6501067	0.1	3.0	20
2-Chlorotoluene	A	25.000	24.450	3.666018	3.585785		-2.2	20
4-Chlorotoluene	A	25.000	24.230	3.285453	3.184224		-3.1	20
Dibromochloromethane	A	25.000	24.070	0.1708407	0.1644747		-3.7	20
1,2-Dibromo-3-chloropropane	L	25.000	22.520	0.0666406	6.801981E-02		-9.9	20
1,2-Dibromoethane	A	25.000	24.230	0.1390115	0.1347349		-3.1	20
Dibromomethane	A	25.000	23.140	0.1132441	0.104813		-7.4	20
1,2-Dichlorobenzene	A	25.000	23.420	1.693334	1.586417		-6.3	20
1,3-Dichlorobenzene	A	25.000	23.010	2.068389	1.903402		-8.0	20
1,4-Dichlorobenzene	A	25.000	24.620	1.916207	1.887205		-1.5	20



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CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>10FEB32.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702340</u>	Injection Date:	<u>02/10/17</u>
Lab Sample ID:	<u>1702340-CCV3</u>	Injection Time:	<u>18:22</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Dichlorodifluoromethane	A	25.000	24.710	0.4765408	0.4710395		-1.2	20
1,1-Dichloroethane	A	25.000	23.680	1.030991	0.9764141	0.1	-5.3	20
1,2-Dichloroethane	A	25.000	23.770	0.438219	0.4166915		-4.9	20
1,1-Dichloroethene	A	25.000	24.980	0.7766588	0.7760055		-0.08	20
cis-1,2-Dichloroethene	A	25.000	24.700	0.46668	0.4610572		-1.2	20
trans-1,2-Dichloroethene	A	25.000	24.540	0.4502706	0.4419421		-1.8	20
1,2-Dichloropropane	A	25.000	22.500	0.3723232	0.3351223		-10.0	20
1,3-Dichloropropane	A	25.000	23.910	0.2667047	0.2550583		-4.4	20
2,2-Dichloropropane	A	25.000	24.410	0.6461859	0.6309453		-2.4	20
1,1-Dichloropropene	A	25.000	24.850	0.61317	0.6094207		-0.6	20
cis-1,3-Dichloropropene	A	25.000	23.590	0.436368	0.4116783		-5.7	20
trans-1,3-Dichloropropene	A	25.000	24.270	0.3001727	0.2913744		-2.9	20
Ethylbenzene	A	25.000	24.370	1.699115	1.656406		-2.5	20
Hexachlorobutadiene	A	25.000	26.900	0.8012975	0.8621775		7.6	20
Isopropylbenzene	A	25.000	23.740	5.188549	4.927158		-5.0	20
p-Isopropyltoluene	A	25.000	24.240	4.064913	3.940755		-3.1	20
Methylene chloride	L	25.000	25.780	0.601454	0.3962237		3.1	20
Methyl t-butyl ether	A	25.000	25.740	0.6285989	0.6471114		2.9	20
Naphthalene	A	25.000	27.270	1.162765	1.268144		9.1	20
n-Propylbenzene	A	25.000	23.260	5.959786	5.544303		-7.0	20
Styrene	A	25.000	24.850	2.90027	2.883418		-0.6	20
1,1,1,2-Tetrachloroethane	A	25.000	24.340	0.9261768	0.9016897		-2.6	20
1,1,2,2-Tetrachloroethane	A	25.000	24.300	0.555952	0.5403563	0.3	-2.8	20



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CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>10FEB32.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702340</u>	Injection Date:	<u>02/10/17</u>
Lab Sample ID:	<u>1702340-CCV3</u>	Injection Time:	<u>18:22</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Tetrachloroethene	A	25.000	24.970	0.3412463	0.3407974		-0.1	20
Toluene	A	25.000	23.450	0.7797766	0.7314558		-6.2	20
1,2,3-Trichlorobenzene	A	25.000	26.960	1.02527	1.105613		7.8	20
1,2,4-Trichlorobenzene	A	25.000	26.410	1.194842	1.262077		5.6	20
1,1,1-Trichloroethane	A	25.000	24.230	0.6397625	0.6201035		-3.1	20
1,1,2-Trichloroethane	A	25.000	24.020	0.1533095	0.1472743		-3.9	20
Trichloroethene	A	25.000	25.350	0.3255704	0.3301664		1.4	20
Trichlorofluoromethane	A	25.000	25.770	0.5867905	0.6048774		3.1	20
1,2,3-Trichloropropane	L	25.000	26.290	0.105337	0.1149826		5.2	20
1,1,2-Trichloro-1,2,2-trifluoroethane	A	25.000	24.650	0.4183029	0.4123878		-1.4	20
1,2,4-Trimethylbenzene	A	25.000	24.460	3.597754	3.519403		-2.2	20
1,3,5-Trimethylbenzene	A	25.000	23.050	3.970515	3.661539		-7.8	20
Vinyl chloride	A	25.000	26.370	0.5958562	0.628566		5.5	20
Total Xylenes	A	75.000	72.770	1.988127	1.929211		-3.0	20
p- & m-Xylenes	A	50.000	48.760	2.011739	1.961786		-2.5	20
o-Xylene	A	25.000	24.010	1.940902	1.864061		-4.0	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits for beginning CCVs. For ending CCVs, limit is 50.

(1): Cal Type (Calibration Type): A = Average; L = Linear Regression; Q = Quadratic Regression

(2): % Diff (of Response Factors) reported when Cal Type = A; %Drift (of Conc) reported when Cal Type = L or Q



AMEC Environmental & Infrastructure
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CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>10FEB33.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702340</u>	Injection Date:	<u>02/10/17</u>
Lab Sample ID:	<u>1702340-CCV4</u>	Injection Time:	<u>18:45</u>

COMPOUND	(1) _{CAL} TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Acetone	A	320.00	331.65	0.044841	4.647299E-02		3.6	20
Acetonitrile	L	160.00	201.55	1.965066E-02	2.066884E-02		26.0	20 *
Acrolein	A	200.00	260.23	0.0199267	2.592752E-02		30.1	20 *
Acrylonitrile	A	80.000	79.770	6.371868E-02	6.353753E-02		-0.3	20
Allyl chloride	A	32.000	26.870	1.114402	0.9357201		-16.0	20
t-Amyl Methyl ether	A	16.000	14.010	0.7281162	0.6374125		-12.5	20
Benzyl chloride	A	32.000	26.710	0.8656921	0.7225308		-16.5	20
t-Butyl alcohol	A	800.00	778.22	1.280474E-02	1.245619E-02		-2.7	20
Carbon disulfide	A	32.000	27.720	1.344744	1.165067		-13.4	20
Chloroprene	A	32.000	27.420	1.000946	0.8577787		-14.3	20
Cyclohexane	A	25.000	24.260	1.086285	1.054071		-3.0	20
Cyclohexanone	A	400.00	237.13	4.458125E-02	2.642915E-02		-40.7	20 *
trans-1,4-Dichloro-2-butene	A	80.000	70.470	0.1551532	0.1366651		-11.9	20
Diisopropyl ether	A	16.000	14.530	0.3174881	0.2882407		-9.2	20
Ethanol	A	4000.0	4784.7	1.543484E-03	1.846293E-03		19.6	20
Ethyl methacrylate	A	80.000	74.030	0.1775957	0.1643513		-7.5	20
Ethyl t-butyl ether	A	16.000	13.330	1.311089	1.091984		-16.7	20
2-Hexanone	Q	320.00	288.94	0.0923643	8.056617E-02		-9.7	20
Isobutanol	A	400.00	402.12	6.527947E-03	6.562464E-03		0.5	20
Methacrylonitrile	A	160.00	150.51	6.173201E-02	5.807062E-02		-5.9	20
Methylcyclohexane	A	25.000	22.530	0.617876	0.5568278		-9.9	20
Methyl ethyl ketone	A	160.00	158.69	0.0879739	8.725488E-02		-0.8	20
Methyl iodide	A	32.000	9.9800	0.5848188	0.1823132		-68.8	20 *



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CONTINUING CALIBRATION CHECK

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>MS-V5</u>	Calibration:	<u>1702011</u>
Lab File ID:	<u>10FEB33.D</u>	Calibration Date:	<u>01/26/17 17:00</u>
Sequence:	<u>1702340</u>	Injection Date:	<u>02/10/17</u>
Lab Sample ID:	<u>1702340-CCV4</u>	Injection Time:	<u>18:45</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Methyl isobutyl ketone	A	160.00	143.50	0.1389299	0.1246013		-10.3	20
Methyl methacrylate	A	80.000	73.140	8.339718E-02	7.624527E-02		-8.6	20
Propionitrile	A	400.00	403.92	2.300947E-02	2.323475E-02		1.0	20
Vinyl acetate	A	160.00	109.72	0.6344058	0.4350554		-31.4	20 *

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits for beginning CCVs. For ending CCVs, limit is 50.

(1): Cal Type (Calibration Type): A = Average; L = Linear Regression; Q = Quadratic Regression

(2): % Diff (of Response Factors) reported when Cal Type = A; %Drift (of Conc) reported when Cal Type = L or Q



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

SURROGATE STANDARD RECOVERY AND RT SUMMARY EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Sequence:	<u>1702048</u>	Instrument:	<u>MS-V5</u>
Matrix:	<u>Water</u>	Calibration:	<u>1702011</u>

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Cal Standard (1702048-CAL1)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	98.6		6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	95.5		8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	88.4		10.35	10.355	-0.0050	+/-1.0	
Cal Standard (1702048-CAL2)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	99.3		6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	97.1		8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	90.4		10.36	10.355	0.0050	+/-1.0	
Cal Standard (1702048-CAL3)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	103		6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	94.8		8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	96.0		10.36	10.355	0.0050	+/-1.0	
Cal Standard (1702048-CAL5)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	97.1		6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	97.2		8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	93.3		10.35	10.355	-0.0050	+/-1.0	
Cal Standard (1702048-CAL6)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	86.6		6.93	6.921667	0.0083	+/-1.0	
Toluene-d8 (Surrogate)	10.000	93.4		8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	89.5		10.35	10.355	-0.0050	+/-1.0	
Cal Standard (1702048-CAL4)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	106		6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	102		8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	102		10.36	10.355	0.0050	+/-1.0	



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Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Sequence:	<u>1702156</u>	Instrument:	<u>MS-V5</u>
Matrix:	<u>Water</u>	Calibration:	<u>1702011</u>

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Initial Cal Check (1702156-ICV1)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	104	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	98.1	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	108	85 - 114	10.36	10.355	0.0050	+/-1.0	
Initial Cal Blank (1702156-ICB1)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	113	81 - 118	6.93	6.921667	0.0083	+/-1.0	
Toluene-d8 (Surrogate)	10.000	99.3	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	103	85 - 114	10.35	10.355	-0.0050	+/-1.0	
Calibration Check (1702156-CCV1)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	112	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	98.5	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	101	85 - 114	10.35	10.355	-0.0050	+/-1.0	
Calibration Blank (1702156-CCB1)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	108	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	102	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	96.6	85 - 114	10.35	10.355	-0.0050	+/-1.0	
Blank (B B0714-BLK1)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	104	81 - 118	6.93	6.921667	0.0083	+/-1.0	
Toluene-d8 (Surrogate)	10.000	99.6	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	94.1	85 - 114	10.35	10.355	-0.0050	+/-1.0	
P4-1-MWIB2_170201 (1702918-10)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	103	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	103	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	99.1	85 - 114	10.35	10.355	-0.0050	+/-1.0	
LCS (B B0714-BS1)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	97.9	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	99.0	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	98.5	85 - 114	10.35	10.355	-0.0050	+/-1.0	



AMEC Environmental & Infrastructure
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Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

SURROGATE STANDARD RECOVERY AND RT SUMMARY EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Sequence:	<u>1702156</u>	Instrument:	<u>MS-V5</u>
Matrix:	<u>Water</u>	Calibration:	<u>1702011</u>

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Matrix Spike (B B0714-MS1)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	93.8	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	96.7	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	99.5	85 - 114	10.35	10.355	-0.0050	+/-1.0	
Matrix Spike Dup (B B0714-MSD1)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	93.4	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	99.7	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	95.1	85 - 114	10.35	10.355	-0.0050	+/-1.0	
Calibration Check (1702156-CCV3)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	95.7	81 - 118	6.93	6.921667	0.0083	+/-1.0	
Toluene-d8 (Surrogate)	10.000	99.2	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	95.8	85 - 114	10.35	10.355	-0.0050	+/-1.0	
Calibration Blank (1702156-CCB2)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	103	81 - 118	6.93	6.921667	0.0083	+/-1.0	
Toluene-d8 (Surrogate)	10.000	98.0	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	93.3	85 - 114	10.35	10.355	-0.0050	+/-1.0	
D03-03_170201 (1702918-01)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	105	81 - 118	6.93	6.921667	0.0083	+/-1.0	
Toluene-d8 (Surrogate)	10.000	95.3	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	95.7	85 - 114	10.35	10.355	-0.0050	+/-1.0	
DUP15_170201 (1702918-02)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	101	81 - 118	6.93	6.921667	0.0083	+/-1.0	
Toluene-d8 (Surrogate)	10.000	96.1	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	94.6	85 - 114	10.35	10.355	-0.0050	+/-1.0	
DUP16_170201 (1702918-03)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	108	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	99.5	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	97.2	85 - 114	10.35	10.355	-0.0050	+/-1.0	



AMEC Environmental & Infrastructure
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Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

SURROGATE STANDARD RECOVERY AND RT SUMMARY

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Sequence:	<u>1702156</u>	Instrument:	<u>MS-V5</u>
Matrix:	<u>Water</u>	Calibration:	<u>1702011</u>

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
M03-10_170201 (1702918-05)					Lab File ID: 08FEB39.D	Analyzed: 02/08/17 20:18		
1,2-Dichloroethane-d4 (Surrogate)	10.000	108	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	95.0	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	96.9	85 - 114	10.35	10.355	-0.0050	+/-1.0	
MW360-1_170201 (1702918-08)					Lab File ID: 08FEB41.D	Analyzed: 02/08/17 21:05		
1,2-Dichloroethane-d4 (Surrogate)	10.000	105	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	104	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	98.0	85 - 114	10.35	10.355	-0.0050	+/-1.0	
MW630-4_170201 (1702918-09)					Lab File ID: 08FEB42.D	Analyzed: 02/08/17 21:28		
1,2-Dichloroethane-d4 (Surrogate)	10.000	109	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	98.9	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	97.5	85 - 114	10.35	10.355	-0.0050	+/-1.0	
P-4-1-MWS6_170201 (1702918-11)					Lab File ID: 08FEB43.D	Analyzed: 02/08/17 21:52		
1,2-Dichloroethane-d4 (Surrogate)	10.000	110	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	97.4	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	95.8	85 - 114	10.35	10.355	-0.0050	+/-1.0	
S4-TT-MW01_170201 (1702918-12)					Lab File ID: 08FEB44.D	Analyzed: 02/08/17 22:15		
1,2-Dichloroethane-d4 (Surrogate)	10.000	105	81 - 118	6.93	6.921667	0.0083	+/-1.0	
Toluene-d8 (Surrogate)	10.000	97.5	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	95.4	85 - 114	10.35	10.355	-0.0050	+/-1.0	
372-MW1_170201 (1702918-13)					Lab File ID: 08FEB45.D	Analyzed: 02/08/17 22:38		
1,2-Dichloroethane-d4 (Surrogate)	10.000	103	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	99.7	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	99.1	85 - 114	10.35	10.355	-0.0050	+/-1.0	
EB15_170201 (1702918-14)					Lab File ID: 08FEB46.D	Analyzed: 02/08/17 23:02		
1,2-Dichloroethane-d4 (Surrogate)	10.000	107	81 - 118	6.93	6.921667	0.0083	+/-1.0	
Toluene-d8 (Surrogate)	10.000	97.8	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	96.0	85 - 114	10.35	10.355	-0.0050	+/-1.0	



AMEC Environmental & Infrastructure
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Project: Alameda
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SURROGATE STANDARD RECOVERY AND RT SUMMARY EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Sequence:	<u>1702156</u>	Instrument:	<u>MS-V5</u>
Matrix:	<u>Water</u>	Calibration:	<u>1702011</u>

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
EB16_170201 (1702918-15)					Lab File ID: 08FEB47.D	Analyzed: 02/08/17 23:25		
1,2-Dichloroethane-d4 (Surrogate)	10.000	106	81 - 118	6.93	6.921667	0.0083	+/-1.0	
Toluene-d8 (Surrogate)	10.000	98.3	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	95.4	85 - 114	10.35	10.355	-0.0050	+/-1.0	
M03-05_170201 (1702918-16)					Lab File ID: 08FEB48.D	Analyzed: 02/08/17 23:49		
1,2-Dichloroethane-d4 (Surrogate)	10.000	111	81 - 118	6.93	6.921667	0.0083	+/-1.0	
Toluene-d8 (Surrogate)	10.000	97.5	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	98.3	85 - 114	10.35	10.355	-0.0050	+/-1.0	
MW-02_170201 (1702918-18)					Lab File ID: 08FEB49.D	Analyzed: 02/09/17 00:12		
1,2-Dichloroethane-d4 (Surrogate)	10.000	111	81 - 118	6.93	6.921667	0.0083	+/-1.0	
Toluene-d8 (Surrogate)	10.000	98.8	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	96.9	85 - 114	10.35	10.355	-0.0050	+/-1.0	
M03-18_170201 (1702918-06)					Lab File ID: 08FEB59.D	Analyzed: 02/09/17 04:04		
1,2-Dichloroethane-d4 (Surrogate)	10.000	110	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	99.7	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	100	85 - 114	10.35	10.355	-0.0050	+/-1.0	
M03-17_170201 (1702918-17)					Lab File ID: 08FEB60.D	Analyzed: 02/09/17 04:27		
1,2-Dichloroethane-d4 (Surrogate)	10.000	103	81 - 118	6.93	6.921667	0.0083	+/-1.0	
Toluene-d8 (Surrogate)	10.000	96.3	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	102	85 - 114	10.35	10.355	-0.0050	+/-1.0	
Calibration Check (1702156-CCV5)					Lab File ID: 09FEB02.D	Analyzed: 02/09/17 05:14		
1,2-Dichloroethane-d4 (Surrogate)	10.000	99.1	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	100	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	99.4	85 - 114	10.35	10.355	-0.0050	+/-1.0	
Calibration Blank (1702156-CCB3)					Lab File ID: 09FEB04.D	Analyzed: 02/09/17 06:12		
1,2-Dichloroethane-d4 (Surrogate)	10.000	106	81 - 118	6.93	6.921667	0.0083	+/-1.0	
Toluene-d8 (Surrogate)	10.000	98.5	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	92.1	85 - 114	10.35	10.355	-0.0050	+/-1.0	



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Project Number: 5023146096
Project Manager: Kelli Miller

SURROGATE STANDARD RECOVERY AND RT SUMMARY EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Sequence:	<u>1702254</u>	Instrument:	<u>MS-V5</u>
Matrix:	<u>Water</u>	Calibration:	<u>1702011</u>

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Initial Cal Check (1702254-ICV1)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	104	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	98.1	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	108	85 - 114	10.36	10.355	0.0050	+/-1.0	
Calibration Blank (1702254-CCB1)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	104	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	98.9	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	96.7	85 - 114	10.35	10.355	-0.0050	+/-1.0	
Calibration Check (1702254-CCV3)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	97.9	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	97.9	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	106	85 - 114	10.35	10.355	-0.0050	+/-1.0	
Calibration Blank (1702254-CCB2)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	101	81 - 118	6.93	6.921667	0.0083	+/-1.0	
Toluene-d8 (Surrogate)	10.000	99.2	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	94.2	85 - 114	10.35	10.355	-0.0050	+/-1.0	
M03-06_170201 (1702918-04)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	102	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	98.6	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	95.9	85 - 114	10.35	10.355	-0.0050	+/-1.0	
M03-19_170201 (1702918-07)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	105	81 - 118	6.93	6.921667	0.0083	+/-1.0	
Toluene-d8 (Surrogate)	10.000	98.7	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	98.7	85 - 114	10.35	10.355	-0.0050	+/-1.0	
DUP16_170201 (1702918-03RE1)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	104	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	98.6	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	101	85 - 114	10.35	10.355	-0.0050	+/-1.0	



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

SURROGATE STANDARD RECOVERY AND RT SUMMARY EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Sequence:	<u>1702254</u>	Instrument:	<u>MS-V5</u>
Matrix:	<u>Water</u>	Calibration:	<u>1702011</u>

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
MW360-1_170201 (1702918-08RE1)					Lab File ID: 09FEB53.D	Analyzed: 02/10/17 01:25		
1,2-Dichloroethane-d4 (Surrogate)	10.000	105	81 - 118	6.93	6.921667	0.0083	+/-1.0	
Toluene-d8 (Surrogate)	10.000	95.6	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	99.0	85 - 114	10.35	10.355	-0.0050	+/-1.0	
MW630-4_170201 (1702918-09RE1)					Lab File ID: 09FEB54.D	Analyzed: 02/10/17 01:48		
1,2-Dichloroethane-d4 (Surrogate)	10.000	107	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	99.5	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	98.7	85 - 114	10.35	10.355	-0.0050	+/-1.0	
Calibration Check (1702254-CCV5)					Lab File ID: 10FEB02.D	Analyzed: 02/10/17 06:27		
1,2-Dichloroethane-d4 (Surrogate)	10.000	100	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	101	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	97.0	85 - 114	10.35	10.355	-0.0050	+/-1.0	
Calibration Blank (1702254-CCB3)					Lab File ID: 10FEB04.D	Analyzed: 02/10/17 07:14		
1,2-Dichloroethane-d4 (Surrogate)	10.000	105	81 - 118	6.93	6.921667	0.0083	+/-1.0	
Toluene-d8 (Surrogate)	10.000	98.4	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	98.7	85 - 114	10.35	10.355	-0.0050	+/-1.0	



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

SURROGATE STANDARD RECOVERY AND RT SUMMARY EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Sequence:	<u>1702340</u>	Instrument:	<u>MS-V5</u>
Matrix:	<u>Water</u>	Calibration:	<u>1702011</u>

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
Initial Cal Check (1702340-ICV1)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	104	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	98.1	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	108	85 - 114	10.36	10.355	0.0050	+/-1.0	
Initial Cal Blank (1702340-ICB1)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	113	81 - 118	6.93	6.921667	0.0083	+/-1.0	
Toluene-d8 (Surrogate)	10.000	99.3	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	103	85 - 114	10.35	10.355	-0.0050	+/-1.0	
Calibration Check (1702340-CCV1)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	100	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	101	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	97.0	85 - 114	10.35	10.355	-0.0050	+/-1.0	
Calibration Blank (1702340-CCB1)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	105	81 - 118	6.93	6.921667	0.0083	+/-1.0	
Toluene-d8 (Surrogate)	10.000	98.4	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	98.7	85 - 114	10.35	10.355	-0.0050	+/-1.0	
DUP16_170201 (1702918-03RE2)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	109	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	97.6	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	96.8	85 - 114	10.35	10.355	-0.0050	+/-1.0	
MW360-1_170201 (1702918-08RE2)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	110	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	100	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	93.3	85 - 114	10.35	10.355	-0.0050	+/-1.0	
MW-02_170201 (1702918-18RE1)								
1,2-Dichloroethane-d4 (Surrogate)	10.000	106	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	100	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	94.4	85 - 114	10.35	10.355	-0.0050	+/-1.0	



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

SURROGATE STANDARD RECOVERY AND RT SUMMARY EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Sequence: 1702340 Instrument: MS-V5
Matrix: Water Calibration: 1702011

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
P4-1-MWIB2_170201 (1702918-10RE1) Lab File ID: 10FEB11.D Analyzed: 02/10/17 09:57								
1,2-Dichloroethane-d4 (Surrogate)	10.000	106	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	99.7	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	99.5	85 - 114	10.35	10.355	-0.0050	+/-1.0	
Calibration Check (1702340-CCV3) Lab File ID: 10FEB32.D Analyzed: 02/10/17 18:22								
1,2-Dichloroethane-d4 (Surrogate)	10.000	98.4	81 - 118	6.92	6.921667	-0.0017	+/-1.0	
Toluene-d8 (Surrogate)	10.000	95.3	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	99.0	85 - 114	10.35	10.355	-0.0050	+/-1.0	
Calibration Blank (1702340-CCB2) Lab File ID: 10FEB34.D Analyzed: 02/10/17 19:08								
1,2-Dichloroethane-d4 (Surrogate)	10.000	107	81 - 118	6.93	6.921667	0.0083	+/-1.0	
Toluene-d8 (Surrogate)	10.000	94.0	89 - 112	8.61	8.61	0.0000	+/-1.0	
4-Bromofluorobenzene (Surrogate)	10.000	95.9	85 - 114	10.35	10.355	-0.0050	+/-1.0	



AMEC Environmental & Infrastructure
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San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INTERNAL STANDARD AREA AND RT SUMMARY EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Sequence:	<u>1702048</u>	Instrument:	<u>MS-V5</u>
Matrix:	<u>Water</u>	Calibration:	<u>1702011</u>

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Cal Standard (1702048-CALD)			Lab File ID: 13DEC06.D			Analyzed: 12/13/16 10:10			
Pentafluorobenzene (IS)	179698	6.71	210237	6.59	85	50 - 200	0.1200	+/-0.50	
Cal Standard (1702048-CALE)			Lab File ID: 13DEC07.D			Analyzed: 12/13/16 10:32			
Pentafluorobenzene (IS)	181927	6.7	210237	6.59	87	50 - 200	0.1100	+/-0.50	
Cal Standard (1702048-CALF)			Lab File ID: 13DEC08.D			Analyzed: 12/13/16 10:55			
Pentafluorobenzene (IS)	182850	6.7	210237	6.59	87	50 - 200	0.1100	+/-0.50	
Cal Standard (1702048-CALG)			Lab File ID: 13DEC09.D			Analyzed: 12/13/16 11:18			
Pentafluorobenzene (IS)	175456	6.7	210237	6.59	83	50 - 200	0.1100	+/-0.50	
Cal Standard (1702048-CALH)			Lab File ID: 13DEC10.D			Analyzed: 12/13/16 11:41			
Pentafluorobenzene (IS)	178003	6.7	210237	6.59	85	50 - 200	0.1100	+/-0.50	
Cal Standard (1702048-CALI)			Lab File ID: 13DEC11.D			Analyzed: 12/13/16 12:04			
Pentafluorobenzene (IS)	180722	6.71	210237	6.59	86	50 - 200	0.1200	+/-0.50	
Cal Standard (1702048-CAL1)			Lab File ID: 26JAN06.D			Analyzed: 01/26/17 16:07			
Pentafluorobenzene (IS)	220247	6.58	210237	6.59	105	50 - 200	-0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	74437	9.62	76990	9.62	97	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	307137	7.39	296345	7.39	104	50 - 200	0.0000	+/-0.50	
Cal Standard (1702048-CAL2)			Lab File ID: 26JAN07.D			Analyzed: 01/26/17 16:30			
Pentafluorobenzene (IS)	220154	6.58	210237	6.59	105	50 - 200	-0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	72326	9.62	76990	9.62	94	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	293817	7.39	296345	7.39	99	50 - 200	0.0000	+/-0.50	
Cal Standard (1702048-CAL3)			Lab File ID: 26JAN08.D			Analyzed: 01/26/17 16:53			
Pentafluorobenzene (IS)	205618	6.58	210237	6.59	98	50 - 200	-0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	69095	9.62	76990	9.62	90	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	296048	7.39	296345	7.39	100	50 - 200	0.0000	+/-0.50	
Cal Standard (1702048-CAL5)			Lab File ID: 26JAN10.D			Analyzed: 01/26/17 17:39			
Pentafluorobenzene (IS)	205022	6.58	210237	6.59	98	50 - 200	-0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	71070	9.63	76990	9.62	92	50 - 200	0.0100	+/-0.50	
1,4-Difluorobenzene (IS)	294320	7.39	296345	7.39	99	50 - 200	0.0000	+/-0.50	



AMEC Environmental & Infrastructure
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San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INTERNAL STANDARD AREA AND RT SUMMARY EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Sequence: 1702048 Instrument: MS-V5

Matrix: Water Calibration: 1702011

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Cal Standard (1702048-CAL6)				Lab File ID: 26JAN11.D			Analyzed: 01/26/17 18:02		
Pentafluorobenzene (IS)	209417	6.58	210237	6.59	100	50 - 200	-0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	67636	9.63	76990	9.62	88	50 - 200	0.0100	+/-0.50	
1,4-Difluorobenzene (IS)	306655	7.39	296345	7.39	103	50 - 200	0.0000	+/-0.50	
Cal Standard (1702048-CAL4)				Lab File ID: 26JAN14.D			Analyzed: 01/26/17 19:12		
Pentafluorobenzene (IS)	210237	6.59	210237	6.59	100	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	76990	9.62	76990	9.62	100	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	296345	7.39	296345	7.39	100	50 - 200	0.0000	+/-0.50	
Cal Standard (1702048-CAL7)				Lab File ID: 07FEB07.D			Analyzed: 02/07/17 09:30		
Pentafluorobenzene (IS)	198502	6.59	210237	6.59	94	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	65644	9.62	76990	9.62	85	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	262651	7.39	296345	7.39	89	50 - 200	0.0000	+/-0.50	
Cal Standard (1702048-CAL8)				Lab File ID: 07FEB08.D			Analyzed: 02/07/17 09:53		
Pentafluorobenzene (IS)	197084	6.59	210237	6.59	94	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	66400	9.62	76990	9.62	86	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	256192	7.39	296345	7.39	86	50 - 200	0.0000	+/-0.50	
Cal Standard (1702048-CAL9)				Lab File ID: 07FEB09.D			Analyzed: 02/07/17 10:17		
Pentafluorobenzene (IS)	199098	6.58	210237	6.59	95	50 - 200	-0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	66850	9.62	76990	9.62	87	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	268584	7.39	296345	7.39	91	50 - 200	0.0000	+/-0.50	
Cal Standard (1702048-CALA)				Lab File ID: 07FEB10.D			Analyzed: 02/07/17 10:40		
Pentafluorobenzene (IS)	189807	6.59	210237	6.59	90	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	67543	9.63	76990	9.62	88	50 - 200	0.0100	+/-0.50	
1,4-Difluorobenzene (IS)	267711	7.39	296345	7.39	90	50 - 200	0.0000	+/-0.50	
Cal Standard (1702048-CALB)				Lab File ID: 07FEB11.D			Analyzed: 02/07/17 11:03		
Pentafluorobenzene (IS)	192292	6.58	210237	6.59	91	50 - 200	-0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	64347	9.62	76990	9.62	84	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	268075	7.39	296345	7.39	90	50 - 200	0.0000	+/-0.50	



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INTERNAL STANDARD AREA AND RT SUMMARY EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Sequence: 1702048 Instrument: MS-V5

Matrix: Water Calibration: 1702011

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Cal Standard (1702048-CALC)			Lab File ID: 07FEB12.D			Analyzed: 02/07/17 11:27			
Pentafluorobenzene (IS)	198987	6.58	210237	6.59	95	50 - 200	-0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	68486	9.62	76990	9.62	89	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	272690	7.39	296345	7.39	92	50 - 200	0.0000	+/-0.50	



AMEC Environmental & Infrastructure
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San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INTERNAL STANDARD AREA AND RT SUMMARY EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Sequence: 1702156 Instrument: MS-V5

Matrix: Water Calibration: 1702011

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (1702156-ICV1)			Lab File ID: 26JAN15.D			Analyzed: 01/26/17 19:35			
Pentafluorobenzene (IS)	213388	6.58	210237	6.59	101	50 - 200	-0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	73774	9.62	76990	9.62	96	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	304652	7.39	296345	7.39	103	50 - 200	0.0000	+/-0.50	
Initial Cal Blank (1702156-ICB1)			Lab File ID: 26JAN17.D			Analyzed: 01/26/17 20:23			
Pentafluorobenzene (IS)	218750	6.59	213388	6.58	103	50 - 200	0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	72255	9.62	73774	9.62	98	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	295229	7.39	304652	7.39	97	50 - 200	0.0000	+/-0.50	
Initial Cal Check (1702156-ICV2)			Lab File ID: 07FEB15.D			Analyzed: 02/07/17 12:46			
Pentafluorobenzene (IS)	188542	6.59	210237	6.59	90	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	65064	9.63	76990	9.62	85	50 - 200	0.0100	+/-0.50	
1,4-Difluorobenzene (IS)	259624	7.39	296345	7.39	88	50 - 200	0.0000	+/-0.50	
Initial Cal Blank (1702156-ICB2)			Lab File ID: 07FEB17.D			Analyzed: 02/07/17 13:33			
Pentafluorobenzene (IS)	199643	6.58	188542	6.59	106	50 - 200	-0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	66387	9.63	65064	9.63	102	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	275356	7.39	259624	7.39	106	50 - 200	0.0000	+/-0.50	
Calibration Check (1702156-CCV1)			Lab File ID: 08FEB02.D			Analyzed: 02/08/17 05:47			
Pentafluorobenzene (IS)	187488	6.59	210237	6.59	89	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	69268	9.62	76990	9.62	90	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	271294	7.39	296345	7.39	92	50 - 200	0.0000	+/-0.50	
Calibration Check (1702156-CCV2)			Lab File ID: 08FEB03.D			Analyzed: 02/08/17 06:11			
Pentafluorobenzene (IS)	190650	6.58	210237	6.59	91	50 - 200	-0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	66125	9.63	76990	9.62	86	50 - 200	0.0100	+/-0.50	
1,4-Difluorobenzene (IS)	266176	7.39	296345	7.39	90	50 - 200	0.0000	+/-0.50	
Calibration Blank (1702156-CCB1)			Lab File ID: 08FEB05.D			Analyzed: 02/08/17 06:58			
Pentafluorobenzene (IS)	187281	6.58	190650	6.58	98	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	65302	9.62	66125	9.63	99	50 - 200	-0.0100	+/-0.50	
1,4-Difluorobenzene (IS)	254348	7.39	266176	7.39	96	50 - 200	0.0000	+/-0.50	



AMEC Environmental & Infrastructure
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San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INTERNAL STANDARD AREA AND RT SUMMARY EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Sequence: 1702156 Instrument: MS-V5

Matrix: Water Calibration: 1702011

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Blank (B B0714-BLK1)			Lab File ID: 08FEB16.D			Analyzed: 02/08/17 11:25			
Pentafluorobenzene (IS)	197055	6.58	190650	6.58	103	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	67275	9.63	66125	9.63	102	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	268062	7.39	266176	7.39	101	50 - 200	0.0000	+/-0.50	
P4-1-MWIB2_170201 (1702918-10)			Lab File ID: 08FEB26.D			Analyzed: 02/08/17 15:17			
Pentafluorobenzene (IS)	200055	6.58	190650	6.58	105	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	68451	9.62	66125	9.63	104	50 - 200	-0.0100	+/-0.50	
1,4-Difluorobenzene (IS)	264159	7.39	266176	7.39	99	50 - 200	0.0000	+/-0.50	
LCS (B B0714-BS1)			Lab File ID: 08FEB27.D			Analyzed: 02/08/17 15:40			
Pentafluorobenzene (IS)	194083	6.59	190650	6.58	102	50 - 200	0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	66248	9.62	66125	9.63	100	50 - 200	-0.0100	+/-0.50	
1,4-Difluorobenzene (IS)	275638	7.39	266176	7.39	104	50 - 200	0.0000	+/-0.50	
Matrix Spike (B B0714-MS1)			Lab File ID: 08FEB28.D			Analyzed: 02/08/17 16:03			
Pentafluorobenzene (IS)	196825	6.58	190650	6.58	103	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	67427	9.62	66125	9.63	102	50 - 200	-0.0100	+/-0.50	
1,4-Difluorobenzene (IS)	270231	7.39	266176	7.39	102	50 - 200	0.0000	+/-0.50	
Matrix Spike Dup (B B0714-MSD1)			Lab File ID: 08FEB29.D			Analyzed: 02/08/17 16:26			
Pentafluorobenzene (IS)	204071	6.59	190650	6.58	107	50 - 200	0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	71370	9.62	66125	9.63	108	50 - 200	-0.0100	+/-0.50	
1,4-Difluorobenzene (IS)	280015	7.39	266176	7.39	105	50 - 200	0.0000	+/-0.50	
Calibration Check (1702156-CCV3)			Lab File ID: 08FEB32.D			Analyzed: 02/08/17 17:36			
Pentafluorobenzene (IS)	198948	6.58	210237	6.59	95	50 - 200	-0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	71496	9.62	76990	9.62	93	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	279490	7.39	296345	7.39	94	50 - 200	0.0000	+/-0.50	
Calibration Check (1702156-CCV4)			Lab File ID: 08FEB33.D			Analyzed: 02/08/17 17:59			
Pentafluorobenzene (IS)	176929	6.58	210237	6.59	84	50 - 200	-0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	60035	9.62	76990	9.62	78	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	251715	7.39	296345	7.39	85	50 - 200	0.0000	+/-0.50	



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INTERNAL STANDARD AREA AND RT SUMMARY EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Sequence: 1702156 Instrument: MS-V5

Matrix: Water Calibration: 1702011

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Blank (1702156-CCB2) Lab File ID: 08FEB34.D Analyzed: 02/08/17 18:22									
Pentafluorobenzene (IS)	211141	6.58	176929	6.58	119	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	72302	9.62	60035	9.62	120	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	287228	7.39	251715	7.39	114	50 - 200	0.0000	+/-0.50	
D03-03_170201 (1702918-01) Lab File ID: 08FEB35.D Analyzed: 02/08/17 18:45									
Pentafluorobenzene (IS)	207264	6.58	176929	6.58	117	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	70383	9.62	60035	9.62	117	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	287720	7.39	251715	7.39	114	50 - 200	0.0000	+/-0.50	
DUP15_170201 (1702918-02) Lab File ID: 08FEB36.D Analyzed: 02/08/17 19:08									
Pentafluorobenzene (IS)	197172	6.58	176929	6.58	111	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	68622	9.62	60035	9.62	114	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	270687	7.39	251715	7.39	108	50 - 200	0.0000	+/-0.50	
DUP16_170201 (1702918-03) Lab File ID: 08FEB37.D Analyzed: 02/08/17 19:31									
Pentafluorobenzene (IS)	195708	6.58	176929	6.58	111	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	66814	9.62	60035	9.62	111	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	257899	7.39	251715	7.39	102	50 - 200	0.0000	+/-0.50	
M03-10_170201 (1702918-05) Lab File ID: 08FEB39.D Analyzed: 02/08/17 20:18									
Pentafluorobenzene (IS)	195214	6.58	176929	6.58	110	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	65649	9.62	60035	9.62	109	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	269274	7.39	251715	7.39	107	50 - 200	0.0000	+/-0.50	
MW360-1_170201 (1702918-08) Lab File ID: 08FEB41.D Analyzed: 02/08/17 21:05									
Pentafluorobenzene (IS)	192686	6.58	176929	6.58	109	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	66734	9.62	60035	9.62	111	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	253480	7.39	251715	7.39	101	50 - 200	0.0000	+/-0.50	
MW630-4_170201 (1702918-09) Lab File ID: 08FEB42.D Analyzed: 02/08/17 21:28									
Pentafluorobenzene (IS)	193869	6.58	176929	6.58	110	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	66113	9.62	60035	9.62	110	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	267900	7.39	251715	7.39	106	50 - 200	0.0000	+/-0.50	



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

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Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INTERNAL STANDARD AREA AND RT SUMMARY EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Sequence: 1702156 Instrument: MS-V5

Matrix: Water Calibration: 1702011

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
P-4-1-MWS6_170201 (1702918-11)			Lab File ID: 08FEB43.D			Analyzed: 02/08/17 21:52			
Pentafluorobenzene (IS)	186186	6.58	176929	6.58	105	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	66134	9.62	60035	9.62	110	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	258052	7.39	251715	7.39	103	50 - 200	0.0000	+/-0.50	
S4-TT-MW01_170201 (1702918-12)			Lab File ID: 08FEB44.D			Analyzed: 02/08/17 22:15			
Pentafluorobenzene (IS)	192057	6.58	176929	6.58	109	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	67667	9.62	60035	9.62	113	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	267111	7.39	251715	7.39	106	50 - 200	0.0000	+/-0.50	
372-MW1_170201 (1702918-13)			Lab File ID: 08FEB45.D			Analyzed: 02/08/17 22:38			
Pentafluorobenzene (IS)	207906	6.58	176929	6.58	118	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	67646	9.62	60035	9.62	113	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	275287	7.39	251715	7.39	109	50 - 200	0.0000	+/-0.50	
EB15_170201 (1702918-14)			Lab File ID: 08FEB46.D			Analyzed: 02/08/17 23:02			
Pentafluorobenzene (IS)	199977	6.59	176929	6.58	113	50 - 200	0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	65882	9.62	60035	9.62	110	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	271038	7.39	251715	7.39	108	50 - 200	0.0000	+/-0.50	
EB16_170201 (1702918-15)			Lab File ID: 08FEB47.D			Analyzed: 02/08/17 23:25			
Pentafluorobenzene (IS)	193125	6.59	176929	6.58	109	50 - 200	0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	62304	9.63	60035	9.62	104	50 - 200	0.0100	+/-0.50	
1,4-Difluorobenzene (IS)	259812	7.39	251715	7.39	103	50 - 200	0.0000	+/-0.50	
M03-05_170201 (1702918-16)			Lab File ID: 08FEB48.D			Analyzed: 02/08/17 23:49			
Pentafluorobenzene (IS)	192623	6.59	176929	6.58	109	50 - 200	0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	61853	9.62	60035	9.62	103	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	258725	7.39	251715	7.39	103	50 - 200	0.0000	+/-0.50	
MW-02_170201 (1702918-18)			Lab File ID: 08FEB49.D			Analyzed: 02/09/17 00:12			
Pentafluorobenzene (IS)	192364	6.58	176929	6.58	109	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	69484	9.63	60035	9.62	116	50 - 200	0.0100	+/-0.50	
1,4-Difluorobenzene (IS)	263196	7.39	251715	7.39	105	50 - 200	0.0000	+/-0.50	



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INTERNAL STANDARD AREA AND RT SUMMARY EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Sequence: 1702156 Instrument: MS-V5

Matrix: Water Calibration: 1702011

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
M03-18_170201 (1702918-06)			Lab File ID: 08FEB59.D			Analyzed: 02/09/17 04:04			
Pentafluorobenzene (IS)	175139	6.58	176929	6.58	99	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	60560	9.62	60035	9.62	101	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	237097	7.39	251715	7.39	94	50 - 200	0.0000	+/-0.50	
M03-17_170201 (1702918-17)			Lab File ID: 08FEB60.D			Analyzed: 02/09/17 04:27			
Pentafluorobenzene (IS)	192251	6.58	176929	6.58	109	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	63045	9.62	60035	9.62	105	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	262128	7.39	251715	7.39	104	50 - 200	0.0000	+/-0.50	
Calibration Check (1702156-CCV5)			Lab File ID: 09FEB02.D			Analyzed: 02/09/17 05:14			
Pentafluorobenzene (IS)	188643	6.59	210237	6.59	90	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	65096	9.62	76990	9.62	85	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	258434	7.39	296345	7.39	87	50 - 200	0.0000	+/-0.50	
Calibration Check (1702156-CCV6)			Lab File ID: 09FEB03.D			Analyzed: 02/09/17 05:37			
Pentafluorobenzene (IS)	198905	6.58	210237	6.59	95	50 - 200	-0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	66702	9.62	76990	9.62	87	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	271267	7.39	296345	7.39	92	50 - 200	0.0000	+/-0.50	
Calibration Blank (1702156-CCB3)			Lab File ID: 09FEB04.D			Analyzed: 02/09/17 06:12			
Pentafluorobenzene (IS)	194916	6.59	198905	6.58	98	50 - 200	0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	66253	9.63	66702	9.62	99	50 - 200	0.0100	+/-0.50	
1,4-Difluorobenzene (IS)	261420	7.39	271267	7.39	96	50 - 200	0.0000	+/-0.50	



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

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Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INTERNAL STANDARD AREA AND RT SUMMARY EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Sequence: 1702254 Instrument: MS-V5

Matrix: Water Calibration: 1702011

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (1702254-ICV1)			Lab File ID: 26JAN15.D			Analyzed: 01/26/17 19:35			
Pentafluorobenzene (IS)	213388	6.58	210237	6.59	101	50 - 200	-0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	73774	9.62	76990	9.62	96	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	304652	7.39	296345	7.39	103	50 - 200	0.0000	+/-0.50	
Initial Cal Check (1702254-ICV2)			Lab File ID: 07FEB15.D			Analyzed: 02/07/17 12:46			
Pentafluorobenzene (IS)	188542	6.59	210237	6.59	90	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	65064	9.63	76990	9.62	85	50 - 200	0.0100	+/-0.50	
1,4-Difluorobenzene (IS)	259624	7.39	296345	7.39	88	50 - 200	0.0000	+/-0.50	
Initial Cal Blank (1702254-ICB2)			Lab File ID: 07FEB17.D			Analyzed: 02/07/17 13:33			
Pentafluorobenzene (IS)	199643	6.58	188542	6.59	106	50 - 200	-0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	66387	9.63	65064	9.63	102	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	275356	7.39	259624	7.39	106	50 - 200	0.0000	+/-0.50	
Calibration Blank (1702254-CCB1)			Lab File ID: 09FEB08.D			Analyzed: 02/09/17 07:51			
Pentafluorobenzene (IS)	202332	6.58	188542	6.59	107	50 - 200	-0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	67208	9.62	65064	9.63	103	50 - 200	-0.0100	+/-0.50	
1,4-Difluorobenzene (IS)	272258	7.39	259624	7.39	105	50 - 200	0.0000	+/-0.50	
Calibration Check (1702254-CCV3)			Lab File ID: 09FEB36.D			Analyzed: 02/09/17 18:51			
Pentafluorobenzene (IS)	202576	6.59	210237	6.59	96	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	70104	9.62	76990	9.62	91	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	290973	7.39	296345	7.39	98	50 - 200	0.0000	+/-0.50	
Calibration Check (1702254-CCV4)			Lab File ID: 09FEB37.D			Analyzed: 02/09/17 19:14			
Pentafluorobenzene (IS)	202038	6.58	210237	6.59	96	50 - 200	-0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	73786	9.62	76990	9.62	96	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	288051	7.39	296345	7.39	97	50 - 200	0.0000	+/-0.50	
Calibration Blank (1702254-CCB2)			Lab File ID: 09FEB38.D			Analyzed: 02/09/17 19:37			
Pentafluorobenzene (IS)	215460	6.58	202038	6.58	107	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	72313	9.62	73786	9.62	98	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	282843	7.39	288051	7.39	98	50 - 200	0.0000	+/-0.50	



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INTERNAL STANDARD AREA AND RT SUMMARY EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Sequence: 1702254 Instrument: MS-V5

Matrix: Water Calibration: 1702011

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
M03-06_170201 (1702918-04)			Lab File ID: 09FEB40.D			Analyzed: 02/09/17 20:23			
Pentafluorobenzene (IS)	206816	6.58	202038	6.58	102	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	66074	9.62	73786	9.62	90	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	280500	7.39	288051	7.39	97	50 - 200	0.0000	+/-0.50	
M03-19_170201 (1702918-07)			Lab File ID: 09FEB41.D			Analyzed: 02/09/17 20:47			
Pentafluorobenzene (IS)	202904	6.58	202038	6.58	100	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	69650	9.62	73786	9.62	94	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	277906	7.39	288051	7.39	96	50 - 200	0.0000	+/-0.50	
DUP16_170201 (1702918-03RE1)			Lab File ID: 09FEB52.D			Analyzed: 02/10/17 01:02			
Pentafluorobenzene (IS)	200767	6.58	202038	6.58	99	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	65828	9.62	73786	9.62	89	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	269326	7.39	288051	7.39	93	50 - 200	0.0000	+/-0.50	
MW360-1_170201 (1702918-08RE1)			Lab File ID: 09FEB53.D			Analyzed: 02/10/17 01:25			
Pentafluorobenzene (IS)	199742	6.58	202038	6.58	99	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	69189	9.62	73786	9.62	94	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	272474	7.39	288051	7.39	95	50 - 200	0.0000	+/-0.50	
MW630-4_170201 (1702918-09RE1)			Lab File ID: 09FEB54.D			Analyzed: 02/10/17 01:48			
Pentafluorobenzene (IS)	200360	6.58	202038	6.58	99	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	68541	9.62	73786	9.62	93	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	275849	7.39	288051	7.39	96	50 - 200	0.0000	+/-0.50	
Calibration Check (1702254-CCV5)			Lab File ID: 10FEB02.D			Analyzed: 02/10/17 06:27			
Pentafluorobenzene (IS)	190081	6.59	210237	6.59	90	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	65682	9.63	76990	9.62	85	50 - 200	0.0100	+/-0.50	
1,4-Difluorobenzene (IS)	264554	7.39	296345	7.39	89	50 - 200	0.0000	+/-0.50	
Calibration Check (1702254-CCV6)			Lab File ID: 10FEB03.D			Analyzed: 02/10/17 06:50			
Pentafluorobenzene (IS)	187920	6.58	210237	6.59	89	50 - 200	-0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	66125	9.62	76990	9.62	86	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	261715	7.39	296345	7.39	88	50 - 200	0.0000	+/-0.50	



AMEC Environmental & Infrastructure
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Project Manager: Kelli Miller

INTERNAL STANDARD AREA AND RT SUMMARY EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Sequence: 1702254 Instrument: MS-V5

Matrix: Water Calibration: 1702011

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Blank (1702254-CCB3) Lab File ID: 10FEB04.D Analyzed: 02/10/17 07:14									
Pentafluorobenzene (IS)	195851	6.58	187920	6.58	104	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	63968	9.62	66125	9.62	97	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	268151	7.39	261715	7.39	102	50 - 200	0.0000	+/-0.50	



AMEC Environmental & Infrastructure
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INTERNAL STANDARD AREA AND RT SUMMARY EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Sequence: 1702340 Instrument: MS-V5

Matrix: Water Calibration: 1702011

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (1702340-ICV1)			Lab File ID: 26JAN15.D			Analyzed: 01/26/17 19:35			
Pentafluorobenzene (IS)	213388	6.58	210237	6.59	101	50 - 200	-0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	73774	9.62	76990	9.62	96	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	304652	7.39	296345	7.39	103	50 - 200	0.0000	+/-0.50	
Initial Cal Blank (1702340-ICB1)			Lab File ID: 26JAN17.D			Analyzed: 01/26/17 20:23			
Pentafluorobenzene (IS)	218750	6.59	213388	6.58	103	50 - 200	0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	72255	9.62	73774	9.62	98	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	295229	7.39	304652	7.39	97	50 - 200	0.0000	+/-0.50	
Initial Cal Check (1702340-ICV2)			Lab File ID: 07FEB15.D			Analyzed: 02/07/17 12:46			
Pentafluorobenzene (IS)	188542	6.59	210237	6.59	90	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	65064	9.63	76990	9.62	85	50 - 200	0.0100	+/-0.50	
1,4-Difluorobenzene (IS)	259624	7.39	296345	7.39	88	50 - 200	0.0000	+/-0.50	
Initial Cal Blank (1702340-ICB2)			Lab File ID: 07FEB17.D			Analyzed: 02/07/17 13:33			
Pentafluorobenzene (IS)	199643	6.58	188542	6.59	106	50 - 200	-0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	66387	9.63	65064	9.63	102	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	275356	7.39	259624	7.39	106	50 - 200	0.0000	+/-0.50	
Calibration Check (1702340-CCV1)			Lab File ID: 10FEB02.D			Analyzed: 02/10/17 06:27			
Pentafluorobenzene (IS)	190081	6.59	210237	6.59	90	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	65682	9.63	76990	9.62	85	50 - 200	0.0100	+/-0.50	
1,4-Difluorobenzene (IS)	264554	7.39	296345	7.39	89	50 - 200	0.0000	+/-0.50	
Calibration Check (1702340-CCV2)			Lab File ID: 10FEB03.D			Analyzed: 02/10/17 06:50			
Pentafluorobenzene (IS)	187920	6.58	210237	6.59	89	50 - 200	-0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	66125	9.62	76990	9.62	86	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	261715	7.39	296345	7.39	88	50 - 200	0.0000	+/-0.50	
Calibration Blank (1702340-CCB1)			Lab File ID: 10FEB04.D			Analyzed: 02/10/17 07:14			
Pentafluorobenzene (IS)	195851	6.58	187920	6.58	104	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	63968	9.62	66125	9.62	97	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	268151	7.39	261715	7.39	102	50 - 200	0.0000	+/-0.50	



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INTERNAL STANDARD AREA AND RT SUMMARY EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Sequence: 1702340 Instrument: MS-V5

Matrix: Water Calibration: 1702011

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
DUP16_170201 (1702918-03RE2)			Lab File ID: 10FEB08.D			Analyzed: 02/10/17 08:47			
Pentafluorobenzene (IS)	190314	6.58	187920	6.58	101	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	63683	9.62	66125	9.62	96	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	262338	7.39	261715	7.39	100	50 - 200	0.0000	+/-0.50	
MW360-1_170201 (1702918-08RE2)			Lab File ID: 10FEB09.D			Analyzed: 02/10/17 09:10			
Pentafluorobenzene (IS)	186607	6.58	187920	6.58	99	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	63736	9.62	66125	9.62	96	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	252668	7.39	261715	7.39	97	50 - 200	0.0000	+/-0.50	
MW-02_170201 (1702918-18RE1)			Lab File ID: 10FEB10.D			Analyzed: 02/10/17 09:34			
Pentafluorobenzene (IS)	167262	6.58	187920	6.58	89	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	59257	9.62	66125	9.62	90	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	232084	7.39	261715	7.39	89	50 - 200	0.0000	+/-0.50	
P4-1-MWIB2_170201 (1702918-10RE1)			Lab File ID: 10FEB11.D			Analyzed: 02/10/17 09:57			
Pentafluorobenzene (IS)	189794	6.58	187920	6.58	101	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	64331	9.62	66125	9.62	97	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	260220	7.39	261715	7.39	99	50 - 200	0.0000	+/-0.50	
Calibration Check (1702340-CCV3)			Lab File ID: 10FEB32.D			Analyzed: 02/10/17 18:22			
Pentafluorobenzene (IS)	198712	6.58	210237	6.59	95	50 - 200	-0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	67645	9.62	76990	9.62	88	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	287575	7.39	296345	7.39	97	50 - 200	0.0000	+/-0.50	
Calibration Check (1702340-CCV4)			Lab File ID: 10FEB33.D			Analyzed: 02/10/17 18:45			
Pentafluorobenzene (IS)	207704	6.58	210237	6.59	99	50 - 200	-0.0100	+/-0.50	
Chlorobenzene-d5 (IS)	70199	9.62	76990	9.62	91	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	285480	7.39	296345	7.39	96	50 - 200	0.0000	+/-0.50	
Calibration Blank (1702340-CCB2)			Lab File ID: 10FEB34.D			Analyzed: 02/10/17 19:08			
Pentafluorobenzene (IS)	216504	6.58	207704	6.58	104	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5 (IS)	70519	9.62	70199	9.62	100	50 - 200	0.0000	+/-0.50	
1,4-Difluorobenzene (IS)	302926	7.39	285480	7.39	106	50 - 200	0.0000	+/-0.50	



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INITIAL CALIBRATION STANDARDS EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Sequence: 1702048 Instrument: MS-V5
Calibration: 1702011

Standard ID	Description	Lab Sample ID	Lab File ID	Analysis Date/Time
6J06023	8260 V5 BFB 50NG	1702048-TUN3	13DEC05.D	12/13/16 09:45
6L13070	8260 V5 1621865 TPPH IC1	1702048-CALD	13DEC06.D	12/13/16 10:10
6L13071	8260 V5 1621865 TPPH IC2	1702048-CALE	13DEC07.D	12/13/16 10:32
6L13072	8260 V5 1621865 TPPH IC3	1702048-CALF	13DEC08.D	12/13/16 10:55
6L13073	8260 V5 1621865 TPPH IC4	1702048-CALG	13DEC09.D	12/13/16 11:18
6L13074	8260 V5 1621865 TPPH IC5	1702048-CALH	13DEC10.D	12/13/16 11:41
6L13075	8260 V5 1621865 TPPH IC6	1702048-CALI	13DEC11.D	12/13/16 12:04
7A05057	8260 V5 BFB 25NG	1702048-TUN1	26JAN03.D	01/26/17 12:01
7A26048	8260 V5 1701474 IC1	1702048-CAL1	26JAN06.D	01/26/17 16:07
7A26049	8260 V5 1701474 IC2	1702048-CAL2	26JAN07.D	01/26/17 16:30
7A26050	8260 V5 1701474 IC3	1702048-CAL3	26JAN08.D	01/26/17 16:53
7A26052	8260 V5 1701474 IC5	1702048-CAL5	26JAN10.D	01/26/17 17:39
7A26053	8260 V5 1701474 IC6	1702048-CAL6	26JAN11.D	01/26/17 18:02
7A26051	8260 V5 1701474 IC4	1702048-CAL4	26JAN14.D	01/26/17 19:12
7A05057	8260 V5 BFB 25NG	1702048-TUN2	07FEB05.D	02/07/17 08:42
7B08028	8260 V5 1702048 XIC1	1702048-CAL7	07FEB07.D	02/07/17 09:30
7B08029	8260 V5 1702048 XIC2	1702048-CAL8	07FEB08.D	02/07/17 09:53
7B08030	8260 V5 1702048 XIC3	1702048-CAL9	07FEB09.D	02/07/17 10:17
7B08031	8260 V5 1702048 XIC4	1702048-CALA	07FEB10.D	02/07/17 10:40
7B08032	8260 V5 1702048 XIC5	1702048-CALB	07FEB11.D	02/07/17 11:03
7B08033	8260 V5 1702048 XIC6	1702048-CALC	07FEB12.D	02/07/17 11:27



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INITIAL CALIBRATION DATA EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Calibration:	<u>1702011</u>	Instrument:	<u>MS-V5</u>
Matrix:	<u>Water</u>	Calibration Date:	<u>01/26/17 17:00</u>

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Benzene	0.5	2.001299	1	2.095124	10	1.998001	25	1.814919	50	1.805429	100	1.622498
Bromobenzene	0.5	1.235138	1	1.233305	10	1.314683	25	1.165975	50	1.096814	100	1.03003
Bromochloromethane	0.5	0.1425672	1	0.1325436	10	0.1711621	25	0.1646656	50	0.1627728	100	0.154593
Bromodichloromethane	0.5	0.3039686	1	0.3564123	10	0.3451298	25	0.3564332	50	0.3208134	100	0.2925043
Bromoform	0.5	0.2880288	1	0.2935321	10	0.3894204	25	0.3803455	50	0.3835852	100	0.3692516
Bromomethane	0.5	0.3263609	1	0.2894338	10	0.3174722	25	0.3148428	50	0.3352665	100	0.3246742
n-Butylbenzene	0.5	3.799186	1	3.935929	10	3.945626	25	3.241273	50	3.207154	100	2.832412
sec-Butylbenzene	0.5	6.128404	1	5.946271	10	5.702019	25	4.595516	50	4.524348	100	3.86744
tert-Butylbenzene	0.5	4.422263	1	4.154523	10	4.063275	25	3.618345	50	3.62728	100	3.227521
Carbon tetrachloride	0.5	0.5077027	1	0.4617677	10	0.4844907	25	0.4578262	50	0.4643785	100	0.4369645
Chlorobenzene	0.5	3.403415	1	3.032519	10	3.204125	25	2.822528	50	2.805949	100	2.599626
Chloroethane	0.5	0.3998238	1	0.4016734	10	0.4094729	25	0.3785956	50	0.3854055	100	0.3667295
Chloroform	0.5	0.7843921	1	0.7785005	10	0.807726	25	0.7485419	50	0.7363083	100	0.6736125
Chloromethane	0.5	0.8379683	1	0.7822706	10	0.7263955	25	0.5612485	50	0.6787272	100	0.6073041
2-Chlorotoluene	0.5	3.913108	1	4.135581	10	4.180331	25	3.40969	50	3.352137	100	3.005263
4-Chlorotoluene	0.5	3.679622	1	3.680004	10	3.650988	25	3.096584	50	3.016066	100	2.589454
Dibromochloromethane	0.5	0.1342072	1	0.1716034	10	0.182467	25	0.1914998	50	0.1804288	100	0.1648377
1,2-Dibromo-3-chloropropane	0.5	3.895912E-02	1	5.295468E-02	10	8.012157E-02	25	0.0787323	50	7.379204E-02	100	7.528387E-02
1,2-Dibromoethane	0.5	0.1336863	1	0.1367178	10	0.1480571	25	0.1507689	50	0.1407957	100	0.1240433
Dibromomethane	0.5	0.1271745	1	0.1174541	10	0.1114515	25	0.1179693	50	0.1072479	100	9.816732E-02
1,2-Dichlorobenzene	0.5	2.013515	1	1.889639	10	1.776988	25	1.627884	50	1.504987	100	1.346993
1,3-Dichlorobenzene	0.5	2.385104	1	2.233775	10	2.130371	25	1.857124	50	1.735571	100	1.491212
1,4-Dichlorobenzene	0.5	1.946344	1	2.30263	10	2.087517	25	1.848552	50	1.760416	100	1.551786
Dichlorodifluoromethane	0.5	0.5168742	1	0.5226796	10	0.485405	25	0.4207518	50	0.4655754	100	0.4479589
1,1-Dichloroethane	0.5	1.107756	1	1.088874	10	1.102973	25	0.9868425	50	0.9803533	100	0.9191498



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

INITIAL CALIBRATION DATA

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Calibration:	<u>1702011</u>	Instrument:	<u>MS-V5</u>
Matrix:	<u>Water</u>	Calibration Date:	<u>01/26/17 17:00</u>

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF										
1,2-Dichloroethane	0.5	0.4109931	1	0.4806181	10	0.4661897	25	0.4574951	50	0.4285013	100	0.3855169
1,1-Dichloroethene	0.5	0.822077	1	0.8447269	10	0.830404	25	0.7319283	50	0.7397421	100	0.6910743
cis-1,2-Dichloroethene	0.5	0.4787352	1	0.465674	10	0.49377	25	0.4738671	50	0.4573558	100	0.430678
trans-1,2-Dichloroethene	0.5	0.5134236	1	0.4547271	10	0.4717729	25	0.4184687	50	0.4370799	100	0.4061514
Total 1,2-Dichloroethene	1	0.4960794	2	0.4602006	20	0.4827714	50	0.4461679	100	0.4472179	200	0.4184147
1,2-Dichloropropane	0.5	0.3695419	1	0.4161093	10	0.3856841	25	0.3855479	50	0.3571677	100	0.3198885
1,3-Dichloropropane	0.5	0.2666562	1	0.2813996	10	0.2688449	25	0.2920285	50	0.2572662	100	0.234033
2,2-Dichloropropane	0.5	0.6856847	1	0.694105	10	0.685368	25	0.5958894	50	0.6303353	100	0.5857332
1,1-Dichloropropene	0.5	0.6661612	1	0.6603559	10	0.6514751	25	0.5887013	50	0.577937	100	0.5343898
cis-1,3-Dichloropropene	0.5	0.4324455	1	0.4859147	10	0.4515889	25	0.4616187	50	0.417184	100	0.3694562
trans-1,3-Dichloropropene	0.5	0.2934847	1	0.3018546	10	0.3177998	25	0.3282147	50	0.2922465	100	0.267436
Total 1,3-Dichloropropene	1	0.3629651	2	0.3938846	20	0.3846944	50	0.3949167	100	0.3547153	200	0.3184461
Ethylbenzene	0.5	1.998469	1	1.919642	10	1.822346	25	1.555085	50	1.559384	100	1.339764
Hexachlorobutadiene	0.5	0.8608622	1	0.9649365	10	0.8274984	25	0.6743993	50	0.7067595	100	0.7733293
Isopropylbenzene	0.5	5.541599	1	5.735282	10	5.562761	25	4.617893	50	4.485209	100	3.88485
p-Isopropyltoluene	0.5	4.370139	1	4.541797	10	4.403227	25	3.50592	50	3.503481	100	2.972745
Methylene chloride	0.5	1.380813	1	0.6020785	10	0.4907061	25	0.4037044	50	0.3786286	100	0.3527932
Methyl t-butyl ether	0.5	0.620576	1	0.5944021	10	0.6643339	25	0.6932177	50	0.6343534	100	0.5647101
Naphthalene	0.5	0.995204	1	0.996737	10	1.150575	25	1.26631	50	1.223878	100	1.343888
n-Propylbenzene	0.5	6.643739	1	6.607306	10	6.34069	25	5.187874	50	5.019322	100	4.296814
Styrene	0.5	2.962237	1	3.059481	10	3.303756	25	2.912087	50	2.761897	100	2.402163
1,1,1,2-Tetrachloroethane	0.5	1.045717	1	0.9335509	10	1.031739	25	0.8899909	50	0.8747263	100	0.7813369
1,1,2,2-Tetrachloroethane	0.5	0.4779881	1	0.5739292	10	0.6053115	25	0.5986648	50	0.5656142	100	0.514204
Tetrachloroethene	0.5	0.406138	1	0.3933741	10	0.3359388	25	0.3169185	50	0.3112157	100	0.283893
Toluene	0.5	0.8762214	1	0.8889887	10	0.7874331	25	0.7579031	50	0.7340921	100	0.6340213
1,2,3-Trichlorobenzene	0.5	1.0124	1	0.9600973	10	1.063608	25	1.029141	50	1.01769	100	1.068681



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San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INITIAL CALIBRATION DATA EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Calibration:	<u>1702011</u>	Instrument:	<u>MS-V5</u>
Matrix:	<u>Water</u>	Calibration Date:	<u>01/26/17 17:00</u>

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
1,2,4-Trichlorobenzene	0.5	1.113693	1	1.202472	10	1.312367	25	1.172028	50	1.14853	100	1.219963
1,1,1-Trichloroethane	0.5	0.6923136	1	0.6673965	10	0.6767841	25	0.6119399	50	0.6120982	100	0.5780424
1,1,2-Trichloroethane	0.5	0.1807662	1	0.141823	10	0.1556943	25	0.1617588	50	0.1464725	100	0.1333424
Trichloroethene	0.5	0.3552161	1	0.3431728	10	0.3314023	25	0.325283	50	0.3122907	100	0.2860576
Trichlorofluoromethane	0.5	0.6536298	1	0.6396432	10	0.5947437	25	0.5430728	50	0.5589381	100	0.5307153
1,2,3-Trichloropropane	0.5	6.824563E-02	1	9.885795E-02	10	0.1319488	25	0.1216781	50	0.1086731	100	0.1026184
1,1,2-Trichloro-1,2,2-trifluoroethan	0.5	0.4622083	1	0.4936999	10	0.4101976	25	0.3755476	50	0.3851518	100	0.3830124
1,2,4-Trimethylbenzene	0.5	4.004191	1	3.987501	10	4.061929	25	3.387905	50	3.272467	100	2.872534
1,3,5-Trimethylbenzene	0.5	4.453162	1	4.32265	10	4.183573	25	3.511978	50	3.38121	100	2.864052
Vinyl chloride	0.5	0.6796914	1	0.6803874	10	0.6002247	25	0.500264	50	0.5785057	100	0.5360639
Total Xylenes	1.5	2.24521	3	2.17529	30	2.169568	75	1.863115	150	1.843755	300	1.631824
Total Trihalomethanes	2	8219.5	4	8694	40	8729.6	100	8725.78	200	8143.66	400	7657.17
Acetone												
Acetonitrile												
Acrolein												
Acrylonitrile												
Allyl chloride												
t-Amyl Alcohol												
t-Amyl Methyl ether												
Benzyl chloride												
t-Butyl alcohol												
Carbon disulfide												
2-Chloroethyl vinyl ether	2	9.966237E-02	4	0.1032701	40	0.1104221	100	0.1195954	200	0.1023104	400	9.026862E-02
Chloroprene												
Chlorotrifluoroethene												
Cyclohexane												



AMEC Environmental & Infrastructure
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San Diego, CA 92123

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Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INITIAL CALIBRATION DATA**EPA-8260B**

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Calibration: 1702011 Instrument: MS-V5
Matrix: Water Calibration Date: 01/26/17 17:00

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Cyclohexanone												
trans-1,4-Dichloro-2-butene												
1,2-Dichlorotrifluoroethane												
2,2-Dichloro-1,1,1-trifluoroethane												
Diethyl ether												
Diisopropyl ether												
1,4-Dioxane												
Ethanol												
Ethyl Amyl Ketone												
Ethyl methacrylate												
Ethyl t-butyl ether												
Hexachloroethane	0.5	0.6636485	1	0.674308	10	0.8036327	25	0.7136875	50	0.7169495	100	0.6525504
Hexane												
2-Hexanone												
Isobutanol												
Isopropyl alcohol												
Methacrylonitrile												
Methyl acetate												
Methylcyclohexane												
Methyl ethyl ketone												
5-Methyl-3-heptanone												
Methyl iodide												
Methyl isobutyl ketone												
Methyl methacrylate												
Pentachloroethane												
Propionitrile												



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INITIAL CALIBRATION DATA EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Calibration: 1702011 Instrument: MS-V5
Matrix: Water Calibration Date: 01/26/17 17:00

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF										
Tetrahydrofuran												
Vinyl acetate												
p- & m-Xylenes	1	2.334995	2	2.206122	20	2.207287	50	1.86021	100	1.846253	200	1.615567
o-Xylene	0.5	2.065639	1	2.113624	10	2.094131	25	1.868923	50	1.838759	100	1.664337
Total Purgeable Petroleum Hydrocarbons												
1,2-Dichloroethane-d4 (Surrogate)	10	0.2973525	10	0.2996357	10	0.3100069	10	0.3141835	10	0.2929637	10	0.2610772
Toluene-d8 (Surrogate)	10	1.132547	10	1.15171	10	1.124811	10	1.157786	10	1.153517	10	1.108464
4-Bromofluorobenzene (Surrogate)	10	1.327082	10	1.358059	10	1.440958	10	1.403026	10	1.400549	10	1.344476



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INITIAL CALIBRATION DATA (Continued)**EPA-8260B**

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Calibration: 1702011 Instrument: MS-V5
Matrix: Water Calibration Date: 01/26/17 17:00

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF										
Benzene												
Bromobenzene												
Bromoform												
Bromochloromethane												
Bromodichloromethane												
Bromomethane												
n-Butylbenzene												
sec-Butylbenzene												
Carbon tetrachloride												
Chlorobenzene												
Chloroethane												
Chloroform												
Chloromethane												
2-Chlorotoluene												
4-Chlorotoluene												
Dibromochloromethane												
1,2-Dibromo-3-chloropropane												
1,2-Dibromoethane												
Dibromomethane												
1,2-Dichlorobenzene												
1,3-Dichlorobenzene												
1,4-Dichlorobenzene												
Dichlorodifluoromethane												
1,1-Dichloroethane												



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Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Calibration: 1702011 Instrument: MS-V5
Matrix: Water Calibration Date: 01/26/17 17:00

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF										
1,2-Dichloroethane												
1,1-Dichloroethene												
cis-1,2-Dichloroethene												
trans-1,2-Dichloroethene												
Total 1,2-Dichloroethene												
1,2-Dichloropropane												
1,3-Dichloropropane												
2,2-Dichloropropane												
1,1-Dichloropropene												
cis-1,3-Dichloropropene												
trans-1,3-Dichloropropene												
Total 1,3-Dichloropropene												
Ethylbenzene												
Hexachlorobutadiene												
Isopropylbenzene												
p-Isopropyltoluene												
Methylene chloride												
Methyl t-butyl ether												
Naphthalene												
n-Propylbenzene												
Styrene												
1,1,1,2-Tetrachloroethane												
1,1,2,2-Tetrachloroethane												
Tetrachloroethene												
Toluene												



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INITIAL CALIBRATION DATA (Continued)

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Calibration:	<u>1702011</u>	Instrument:	<u>MS-V5</u>
Matrix:	<u>Water</u>	Calibration Date:	<u>01/26/17 17:00</u>

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF										
1,2,3-Trichlorobenzene												
1,2,4-Trichlorobenzene												
1,1,1-Trichloroethane												
1,1,2-Trichloroethane												
Trichloroethene												
Trichlorofluoromethane												
1,2,3-Trichloropropane												
1,1,2-Trichloro-1,2,2-trifluoroethan												
1,2,4-Trimethylbenzene												
1,3,5-Trimethylbenzene												
Vinyl chloride												
Total Xylenes												
Total Trihalomethanes												
Acetone	16	5.885331E-02	64	5.486477E-02	160	4.575636E-02	320	4.303549E-02	480	4.238974E-02	800	3.815865E-02
Acetonitrile	8	2.630956E-02	32	2.305172E-02	80	1.904401E-02	160	1.759122E-02	240	1.628795E-02	400	1.561949E-02
Acrolein	10	2.014086E-02	40	2.119655E-02	100	2.164562E-02	200	2.087963E-02	320	1.881822E-02	500	1.687929E-02
Acrylonitrile	4	6.314798E-02	16	6.407166E-02	40	6.566992E-02	80	6.695815E-02	128	6.401479E-02	200	5.844955E-02
Allyl chloride	1.6	1.246209	6.4	1.315699	16	1.051404	32	1.112253	48	1.013242	80	0.9476071
t-Amyl Alcohol	50	8.368681E-03	800	1.000823E-02	1250	1.074325E-02	2500	8.599915E-03	5000	8.577871E-03	10000	7.209516E-03
t-Amyl Methyl ether	0.8	0.7890978	3.2	0.7684858	8	0.6892523	16	0.7455567	24	0.6924863	40	0.6838185
Benzyl chloride	1.6	0.7442607	6.4	0.925193	16	0.8848822	32	0.8672207	48	0.9347496	80	0.8378464
t-Butyl alcohol	40	1.442177E-02	160	1.491686E-02	400	1.279973E-02	800	1.090766E-02	1200	1.097766E-02	2000	9.742395E-03
Carbon disulfide	1.6	1.43122	6.4	1.565917	16	1.28503	32	1.374396	48	1.250966	80	1.160933
2-Chloroethyl vinyl ether												
Chloroprene	1.6	1.052005	6.4	1.14178	16	0.9459726	32	1.015339	48	0.9445065	80	0.9060749



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INITIAL CALIBRATION DATA (Continued)

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Calibration:	<u>1702011</u>	Instrument:	<u>MS-V5</u>
Matrix:	<u>Water</u>	Calibration Date:	<u>01/26/17 17:00</u>

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Chlorotrifluoroethene	0.5		8		12.5		25		50		100	
Cyclohexane	0.5	1.513133	8	1.14025	12.5	1.122121	25	1.141619	50	1.049253	100	0.978181
Cyclohexanone	20	4.801657E-02	80	5.026732E-02	200	4.903964E-02	400	3.924352E-02	640	0.0394305	1000	4.148994E-02
trans-1,4-Dichloro-2-butene	4	0.1390074	16	0.1734846	40	0.1540015	80	0.152377	120	0.1664349	200	0.1456137
1,2-Dichlorotrifluoroethane	0.5	0.600397	8	0.5858479	12.5	0.5631237	25	0.5863303	50	0.5569051	100	0.5084212
2,2-Dichloro-1,1,1-trifluoroethane	0.5	0.9930379	8	0.8988426	12.5	0.9032416	25	0.9175067	50	0.8494633	100	0.7593999
Diethyl ether	0.5	0.168764	8	0.2685847	12.5	0.2588715	25	0.2706454	50	0.2602594	100	0.2429581
Diisopropyl ether	0.8	0.3453366	3.2	0.3248456	8	0.2930466	16	0.3157978	24	0.3161555	40	0.3097464
1,4-Dioxane	100	8.646455E-04	400	8.345304E-04	1000	7.697778E-04	2000	6.080998E-04	3200	5.754803E-04	5000	6.211009E-04
Ethanol	200	1.961189E-03	800	1.782235E-03	2000	1.806949E-03	4000	1.342245E-03	6400	1.380193E-03	10000	0.0014058
Ethyl Amyl Ketone	0.5	0.2848699	8	0.3774285	12.5	0.401472	25	0.3713427	50	0.3908216	100	0.3433067
Ethyl methacrylate	4	0.1918515	16	0.2069249	40	0.1730604	80	0.1709325	120	0.1677136	200	0.1550915
Ethyl t-butyl ether	0.8	1.430653	3.2	1.466063	8	1.203704	16	1.304881	24	1.259166	40	1.202068
Hexachloroethane												
Hexane	0.5	0.5949562	8	0.5887845	12.5	0.6051452	25	0.6307923	50	0.5943815	100	0.5593928
2-Hexanone	16	0.1142652	64	0.1125322	160	9.156423E-02	320	8.783667E-02	480	8.119867E-02	800	6.678884E-02
Isobutanol	20	7.123354E-03	80	7.148602E-03	200	7.636189E-03	400	5.953416E-03	640	5.847877E-03	1000	5.458246E-03
Isopropyl alcohol	40	0.0104873	160	1.050187E-02	400	1.022373E-02	800	7.093126E-03	1280	7.063923E-03	2000	6.91995E-03
Methacrylonitrile	8	6.219711E-02	32	6.763931E-02	80	5.980472E-02	160	6.207918E-02	240	5.981788E-02	400	5.885384E-02
Methyl acetate	5	0.1573687	80	0.1495466	125	0.1512381	250	0.1460355	500	0.1424513	1000	0.1260794
Methylcyclohexane	0.5	0.7070219	8	0.6529624	12.5	0.6367468	25	0.6175689	50	0.5696085	100	0.5233474
Methyl ethyl ketone	8	0.1067181	32	9.618836E-02	80	8.350096E-02	160	8.184004E-02	240	8.202846E-02	400	0.0775675
5-Methyl-3-heptanone	1	0.4867162	16	0.508622	25	0.54838	50	0.4803251	100	0.4967023	200	0.3939813
Methyl iodide	1.6	0.5789929	6.4	0.6355158	16	0.5537757	32	0.609476	48	0.5838484	80	0.547304
Methyl isobutyl ketone	8	0.1497377	32	0.1713839	80	0.1389002	160	0.1345446	240	0.1270829	400	0.1119302



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INITIAL CALIBRATION DATA (Continued)**EPA-8260B**

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Calibration: 1702011 Instrument: MS-V5
Matrix: Water Calibration Date: 01/26/17 17:00

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF										
Methyl methacrylate	4	8.801604E-02	16	9.652917E-02	40	7.997498E-02	80	7.903812E-02	120	7.863968E-02	200	7.818512E-02
Pentachloroethane	0.8	0.4423481	3.2	0.5834902	8	0.5450262	16	0.5418493	24	0.5844225	40	0.5225192
Propionitrile	20	0.0264355	80	2.570414E-02	200	2.384504E-02	400	2.216291E-02	640	2.125608E-02	1000	1.865313E-02
Tetrahydrofuran	16	5.908316E-02	64	5.764278E-02	160	4.946151E-02	320	4.948612E-02	480	0.0473374	800	4.534272E-02
Vinyl acetate	8	0.728072	32	0.7392454	80	0.5993619	160	0.6205669	240	0.584189	400	0.5349996
p- & m-Xylenes												
o-Xylene												
Total Purgeable Petroleum Hydrocarbons												
1,2-Dichloroethane-d4 (Surrogate)												
Toluene-d8 (Surrogate)												
4-Bromofluorobenzene (Surrogate)												



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EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Calibration: 1702011 Instrument: MS-V5
Matrix: Water Calibration Date: 01/26/17 17:00

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/L	RF										
Benzene												
Bromobenzene												
Bromochloromethane												
Bromodichloromethane												
Bromoform												
Bromomethane												
n-Butylbenzene												
sec-Butylbenzene												
tert-Butylbenzene												
Carbon tetrachloride												
Chlorobenzene												
Chloroethane												
Chloroform												
Chloromethane												
2-Chlorotoluene												
4-Chlorotoluene												
Dibromochloromethane												
1,2-Dibromo-3-chloropropane												
1,2-Dibromoethane												
Dibromomethane												
1,2-Dichlorobenzene												
1,3-Dichlorobenzene												
1,4-Dichlorobenzene												
Dichlorodifluoromethane												



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Matrix: Water Calibration Date: 01/26/17 17:00

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/L	RF										
1,1-Dichloroethane												
1,2-Dichloroethane												
1,1-Dichloroethene												
cis-1,2-Dichloroethene												
trans-1,2-Dichloroethene												
Total 1,2-Dichloroethene												
1,2-Dichloropropane												
1,3-Dichloropropane												
2,2-Dichloropropane												
1,1-Dichloropropene												
cis-1,3-Dichloropropene												
trans-1,3-Dichloropropene												
Total 1,3-Dichloropropene												
Ethylbenzene												
Hexachlorobutadiene												
Isopropylbenzene												
p-Isopropyltoluene												
Methylene chloride												
Methyl t-butyl ether												
Naphthalene												
n-Propylbenzene												
Styrene												
1,1,1,2-Tetrachloroethane												
1,1,2,2-Tetrachloroethane												
Tetrachloroethene												



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Matrix: Water Calibration Date: 01/26/17 17:00

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/L	RF										
Toluene												
1,2,3-Trichlorobenzene												
1,2,4-Trichlorobenzene												
1,1,1-Trichloroethane												
1,1,2-Trichloroethane												
Trichloroethene												
Trichlorofluoromethane												
1,2,3-Trichloropropane												
1,1,2-Trichloro-1,2,2-trifluoroethan												
1,2,4-Trimethylbenzene												
1,3,5-Trimethylbenzene												
Vinyl chloride												
Total Xylenes												
Total Trihalomethanes												
Acetone												
Acetonitrile												
Acrolein												
Acrylonitrile												
Allyl chloride												
t-Amyl Alcohol												
t-Amyl Methyl ether												
Benzyl chloride												
t-Butyl alcohol												
Carbon disulfide												
2-Chloroethyl vinyl ether												



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Matrix: Water Calibration Date: 01/26/17 17:00

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/L	RF										
Chloroprene												
Chlorotrifluoroethene												
Cyclohexane												
Cyclohexanone												
trans-1,4-Dichloro-2-butene												
1,2-Dichlorotrifluoroethane												
2,2-Dichloro-1,1,1-trifluoroethane												
Diethyl ether												
Diisopropyl ether												
1,4-Dioxane												
Ethanol												
Ethyl Amyl Ketone												
Ethyl methacrylate												
Ethyl t-butyl ether												
Hexachloroethane												
Hexane												
2-Hexanone												
Isobutanol												
Isopropyl alcohol												
Methacrylonitrile												
Methyl acetate												
Methylecyclohexane												
Methyl ethyl ketone												
5-Methyl-3-heptanone												
Methyl iodide												



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Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/L	RF										
Methyl isobutyl ketone												
Methyl methacrylate												
Pentachloroethane												
Propionitrile												
Tetrahydrofuran												
Vinyl acetate												
p- & m-Xylenes												
o-Xylene												
Total Purgeable Petroleum Hydrocarbons	50	2.870791	500	3.087034	1000	3.029454	1500	3.069891	2000	2.877825	2500	2.932973
1,2-Dichloroethane-d4 (Surrogate)												
Toluene-d8 (Surrogate)												
4-Bromofluorobenzene (Surrogate)												



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Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Calibration:	<u>1702011</u>	Instrument:	<u>MS-V5</u>
Matrix:	<u>Water</u>	Calibration Date:	<u>01/26/17 17:00</u>

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Benzene	1.889545	9.180943	6.94	5.634228E-03			15	
Bromobenzene	1.179324	8.781515	10.45	1.926087E-02			15	
Bromochloromethane	0.1547174	9.471048	6.183333	0.1673501			15	
Bromodichloromethane	0.3292103	8.362367	8.06	1.375235E-02			15	
Bromoform	0.3506939	13.37441	10.16	1.968264E-02			SPCC (0.10)	
Bromomethane	0.3180084	4.949792	2.436667	0.2126912			15	
n-Butylbenzene	3.493597	13.28005	11.23667	9.156336E-02			15	
sec-Butylbenzene	5.379312	14.19416	10.914	8.097688E-02			15	
tert-Butylbenzene	3.852201	11.35355	10.78333	5.100083E-02			15	
Carbon tetrachloride	0.4688551	5.191681	6.72	1.146183E-02			15	
Chlorobenzene	2.978027	9.870514	9.643333	4.988898E-02			SPCC (0.30)	
Chloroethane	0.3902835	4.138092	2.566667	0.2020673			15	
Chloroform	0.7548469	6.273066	6.331667	6.112167E-02			CCC (20)	
Chloromethane	0.6989857	14.97623	1.943333	0.2654085	0.99772		SPCC (0.10)	
2-Chlorotoluene	3.666018	13.06413	10.555	0.0536519			15	
4-Chlorotoluene	3.285453	13.86354	10.62667	4.983224E-02			15	
Dibromochloromethane	0.1708407	11.80164	9.241666	4.175574E-02			15	
1,2-Dibromo-3-chloropropane	0.0666406	25.17557	11.73833	8.312334E-02	0.99981		0.99	
1,2-Dibromoethane	0.1390115	7.054979	9.328333	4.188551E-02			15	
Dibromomethane	0.1132441	8.835653	7.91	1.653285E-02			15	
1,2-Dichlorobenzene	1.693334	14.65138	11.27833	8.752717E-02			15	
1,3-Dichlorobenzene	2.068389	12.94808	11.008	0.1004115			15	
1,4-Dichlorobenzene	1.916207	13.63312	11.065	7.433322E-02			15	
Dichlorodifluoromethane	0.4765408	8.332592	1.76	8.063699E-03			15	
1,1-Dichloroethane	1.030991	7.692112	5.058333	8.126204E-02			SPCC (0.10)	
1,2-Dichloroethane	0.438219	8.268656	7.005	7.754629E-02			15	



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INITIAL CALIBRATION DATA (Continued)

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Calibration:	<u>1702011</u>	Instrument:	<u>MS-V5</u>
Matrix:	<u>Water</u>	Calibration Date:	<u>01/26/17 17:00</u>

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
1,1-Dichloroethene	0.7766588	8.198684	3.515	0.1557692			CCC (20)	
cis-1,2-Dichloroethene	0.46668	4.610702	5.831667	0.1294296			15	
trans-1,2-Dichloroethene	0.4502706	8.659956	4.501667	0.0902417			15	
Total 1,2-Dichloroethene	0.4584753	6.08411	5.831667	0.1294296			15	
1,2-Dichloropropane	0.3723232	8.709297	7.84	9.702376E-03			CCC (20)	
1,3-Dichloropropane	0.2667047	7.533232	9.09	0.0186287			15	
2,2-Dichloropropane	0.6461859	7.526579	5.84	0.1091096			15	
1,1-Dichloropropene	0.61317	8.797094	6.726667	7.685787E-02			15	
cis-1,3-Dichloropropene	0.436368	9.271827	8.408333	4.530242E-02			15	
trans-1,3-Dichloropropene	0.3001727	7.112617	8.83	2.384445E-02			15	
Total 1,3-Dichloropropene	0.3682704	7.991017	8.83	2.384445E-02			15	
Ethylbenzene	1.699115	14.95483	9.698333	4.299496E-02			CCC (20)	
Hexachlorobutadiene	0.8012975	13.30544	12.28833	0.1407559			15	
Isopropylbenzene	5.188549	11.33656	10.24	0.015589			15	
p-Isopropyltoluene	4.064913	12.68025	10.998	7.728538E-02			15	
Methylene chloride	0.601454	65.25738	4.151667	9.579772E-02	0.99908		0.99	
Methyl t-butyl ether	0.6285989	7.393993	4.491666	8.862136E-02			15	
Naphthalene	1.162765	12.34674	12.385	0.1128744			15	
n-Propylbenzene	5.959786	13.29814	10.488	3.977509E-02			15	
Styrene	2.90027	10.45117	10.03167	3.567744E-02			15	
1,1,1,2-Tetrachloroethane	0.9261768	10.84263	9.698333	4.299496E-02			15	
1,1,2,2-Tetrachloroethane	0.555952	8.993065	10.42	9.595757E-03			SPCC (0.30)	
Tetrachloroethene	0.3412463	14.19945	9.038333	3.957867E-02			15	
Toluene	0.7797766	12.17928	8.661667	0.04731			CCC (20)	
1,2,3-Trichlorobenzene	1.02527	3.862187	12.51667	0.1652262			15	
1,2,4-Trichlorobenzene	1.194842	5.768365	12.22	0.1261601			15	



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Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INITIAL CALIBRATION DATA (Continued)

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Calibration:	<u>1702011</u>	Instrument:	<u>MS-V5</u>
Matrix:	<u>Water</u>	Calibration Date:	<u>01/26/17 17:00</u>

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
1,1,1-Trichloroethane	0.6397625	7.075288	6.528334	6.356984E-02			15	
1,1,2-Trichloroethane	0.1533095	10.94703	8.978333	0.0413948			15	
Trichloroethene	0.3255704	7.473897	7.605	0.0716509			15	
Trichlorofluoromethane	0.5867905	8.741507	2.868333	0.1427778			15	
1,2,3-Trichloropropane	0.105337	20.84859	10.46167	3.519845E-02	0.99859		0.99	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.4183029	11.63839	3.535	0.154669			15	
1,2,4-Trimethylbenzene	3.597754	13.66403	10.81667	4.928939E-02			15	
1,3,5-Trimethylbenzene	3.970515	12.33762	10.588	4.151475E-02			15	
Vinyl chloride	0.5958562	12.3798	2.07	5.801038E-03			CCC (20)	
Total Xylenes	1.988127	12.26843	10.02	0.0198293			15	
Total Trihalomethanes	8361.618	5.192236	10.16	1.968264E-02			15	
Acetone	0.044841	13.89285	3.566	0.1535831			15	
Acetonitrile	1.965066E-02	21.35825	3.915	0.1394718	0.99895		0.99	
Acrolein	0.0199267	8.98742	3.396667	0.2401525			15	
Acrylonitrile	6.371868E-02	4.581122	4.443333	0.1152199			15	
Allyl chloride	1.114402	12.68532	3.991667	0.1026915			15	
t-Amyl Alcohol	8.917911E-03	14.14637	6.971666	6.115328E-02			15	
t-Amyl Methyl ether	0.7281162	6.262118	7.09	1.844497E-02			15	
Benzyl chloride	0.8656921	8.036501	11.1	1.307304E-02			15	
t-Butyl alcohol	1.280474E-02	14.61721	4.276	0.2100331			15	
Carbon disulfide	1.344744	10.69499	3.8	0.1664058			15	
2-Chloroethyl vinyl ether	0.1042548	9.542111	8.283333	6.161591E-02			15	
Chloroprene	1.000946	8.693085	5.151667	7.949544E-02			15	
Chlorotrifluoroethene							15	
Cyclohexane	1.086285	6.560645	6.622	6.679619E-02			15	
Cyclohexanone	4.458125E-02	11.37529	10.3	2.077223E-03			15	



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Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INITIAL CALIBRATION DATA (Continued)

EPA-8260B

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Calibration:	<u>1702011</u>	Instrument:	<u>MS-V5</u>
Matrix:	<u>Water</u>	Calibration Date:	<u>01/26/17 17:00</u>

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
trans-1,4-Dichloro-2-butene	0.1551532	8.274238	10.43167	3.686923E-02			15	
1,2-Dichlorotrifluoroethane	0.5668375	5.793663	3.3	1.804918E-02			15	
2,2-Dichloro-1,1,1-trifluoroethane	0.8869153	8.772737	3.391667	0.1202184			15	
Diethyl ether	0.2602638	4.202131	3.22	2.166916E-02			15	
Diisopropyl ether	0.3174881	5.440254	5.103333	9.952656E-02			15	
1,4-Dioxane	7.122724E-04	17.68626	7.9	0.1123963	0.99707		0.99	
Ethanol	1.543484E-03	14.9342	3.09	0.7928208			15	
Ethyl Amyl Ketone	0.3615402	11.74224	10.76	1.356797E-02			15	
Ethyl methacrylate	0.1775957	10.48137	8.86	1.624233E-02			15	
Ethyl t-butyl ether	1.311089	8.660484	5.591667	7.395801E-02			15	
Hexachloroethane	0.7041294	7.867683	11.45	0.0960662			15	
Hexane	0.5955754	3.893747	4.861667	8.576904E-02			15	
2-Hexanone	0.0923643	19.88289	9.103333	0.0561633		0.9995528	0.99	
Isobutanol	6.527947E-03	13.53742	6.845	0.1220592			15	
Isopropyl alcohol	8.714983E-03	21.27518	3.753333	0.575574	0.99615		0.99	
Methacrylonitrile	6.173201E-02	5.168261	6.13	1.714861E-02			15	
Methyl acetate	0.1454533	7.384817	3.973333	0.2059519			15	
Methylcyclohexane	0.617876	10.4386	7.815	6.776742E-02			15	
Methyl ethyl ketone	0.0879739	12.65874	5.813333	8.944584E-02			15	
5-Methyl-3-heptanone	0.4857878	10.50343	10.44	2.779896E-03			15	
Methyl iodide	0.5848188	5.714397	3.705	0.1477932			15	
Methyl isobutyl ketone	0.1389299	14.60526	8.51	1.340775E-02			15	
Methyl methacrylate	8.339718E-02	8.88122	7.88	9.924249E-03			15	
Pentachloroethane	0.5366092	9.742643	10.8	1.727045E-02			15	
Propionitrile	2.300947E-02	12.66567	5.898333	0.1266948			15	
Tetrahydrofuran	5.139228E-02	10.95959	6.196667	8.478846E-02			15	



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Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INITIAL CALIBRATION DATA (Continued)

EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Calibration: 1702011 Instrument: MS-V5
Matrix: Water Calibration Date: 01/26/17 17:00

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Vinyl acetate	0.6344058	12.91925	5.063333	0.1028759			15	
p- & m-Xylenes	2.011739	13.84385	9.78	1.957201E-02			15	
o-Xylene	1.940902	9.244618	10.02	0.0198293			15	
Total Purgeable Petroleum Hydrocarbons	2.977995	3.239537	9.668333	4.855941			15	
1,2-Dichloroethane-d4 (Surrogate)	0.2958699	6.360265	6.921667	6.116163E-02			15	
Toluene-d8 (Surrogate)	1.138139	1.710998	8.61	0.0142186			15	
4-Bromofluorobenzene (Surrogate)	1.379025	3.111593	10.355	4.975555E-02			15	



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Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

HOLDING TIME SUMMARY

EPA-8260B

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
D03-03_170201	02/01/17 11:30	02/01/17 22:30	02/08/17 07:15	7.00	14.00	02/08/17 18:45	7.00	14.00	
DUP15_170201	02/01/17 10:00	02/01/17 22:30	02/08/17 07:15	7.00	14.00	02/08/17 19:08	7.00	14.00	
DUP16_170201	02/01/17 11:05	02/01/17 22:30	02/08/17 07:15	7.00	14.00	02/08/17 19:31	7.00	14.00	
DUP16_170201	02/01/17 11:05	02/01/17 22:30	02/08/17 07:15	9.00	14.00	02/10/17 01:02	9.00	14.00	
DUP16_170201	02/01/17 11:05	02/01/17 22:30	02/08/17 07:15	9.00	14.00	02/10/17 08:47	9.00	14.00	
M03-06_170201	02/01/17 08:30	02/01/17 22:30	02/08/17 07:15	8.00	14.00	02/09/17 20:23	8.00	14.00	
M03-10_170201	02/01/17 10:55	02/01/17 22:30	02/08/17 07:15	7.00	14.00	02/08/17 20:18	7.00	14.00	
M03-18_170201	02/01/17 09:00	02/01/17 22:30	02/08/17 07:15	8.00	14.00	02/09/17 04:04	8.00	14.00	
M03-19_170201	02/01/17 09:55	02/01/17 22:30	02/08/17 07:15	8.00	14.00	02/09/17 20:47	8.00	14.00	
MW360-1_170201	02/01/17 11:00	02/01/17 22:30	02/08/17 07:15	7.00	14.00	02/08/17 21:05	7.00	14.00	
MW360-1_170201	02/01/17 11:00	02/01/17 22:30	02/08/17 07:15	9.00	14.00	02/10/17 01:25	9.00	14.00	
MW360-1_170201	02/01/17 11:00	02/01/17 22:30	02/08/17 07:15	9.00	14.00	02/10/17 09:10	9.00	14.00	
MW630-4_170201	02/01/17 12:30	02/01/17 22:30	02/08/17 07:15	7.00	14.00	02/08/17 21:28	7.00	14.00	
MW630-4_170201	02/01/17 12:30	02/01/17 22:30	02/08/17 07:15	9.00	14.00	02/10/17 01:48	9.00	14.00	
P4-1-MWIB2_170201	02/01/17 09:10	02/01/17 22:30	02/08/17 07:15	7.00	14.00	02/08/17 15:17	7.00	14.00	
P4-1-MWIB2_170201	02/01/17 09:10	02/01/17 22:30	02/08/17 07:15	9.00	14.00	02/10/17 09:57	9.00	14.00	
P-4-1-MWS6_170201	02/01/17 10:00	02/01/17 22:30	02/08/17 07:15	7.00	14.00	02/08/17 21:52	7.00	14.00	
S4-TT-MW01_170201	02/01/17 10:30	02/01/17 22:30	02/08/17 07:15	7.00	14.00	02/08/17 22:15	7.00	14.00	
372-MW1_170201	02/01/17 13:00	02/01/17 22:30	02/08/17 07:15	7.00	14.00	02/08/17 22:38	7.00	14.00	



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EB15_170201	02/01/17 14:30	02/01/17 22:30	02/08/17 07:15	7.00	14.00	02/08/17 23:02	7.00	14.00	
EB16_170201	02/01/17 14:45	02/01/17 22:30	02/08/17 07:15	7.00	14.00	02/08/17 23:25	7.00	14.00	
M03-05_170201	02/01/17 13:35	02/01/17 22:30	02/08/17 07:15	7.00	14.00	02/08/17 23:49	7.00	14.00	
M03-17_170201	02/01/17 12:40	02/01/17 22:30	02/08/17 07:15	8.00	14.00	02/09/17 04:27	8.00	14.00	
MW-02_170201	02/01/17 14:05	02/01/17 22:30	02/08/17 07:15	8.00	14.00	02/09/17 00:12	8.00	14.00	
MW-02_170201	02/01/17 14:05	02/01/17 22:30	02/08/17 07:15	9.00	14.00	02/10/17 09:34	9.00	14.00	

* Holding time not met

Note: If Prep or Analysis are performed within the hour (if holding time is based on hours) or within the day (if holding time is based on days), then the sample is not flagged as outside holding times. Calculated number of days are based on date received or date prepared depending on the test.



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:25:23PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

Notes and Definitions

B	Blank contamination. The analyte is greater than 1/2 the PQL/LOQ/CRQL in the associated method blank.
D	The reported value is from a dilution.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration.
J	The reported value is an estimated value. Results are between the MDL and PQL/LOQ/CRQL.
U	The analyte was not detected and is reported as less than the LOD/MDL or as defined by the client.



BC

LABORATORIES, INC.

Work Order Number: 1702918

**Laboratory Documentation Requirements
For Data Validation of
Wet Chemistry Analysis**

**Prepared By
BC Laboratories**

For AMEC Environmental & Infrastructure

5023146096

All pages have been paginated and results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



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Case Narrative

Analyses Requested: Gen-Chem.
Submission #: 17-02918

Method 160.1
Instrument ID: Manual
Sample Volume(s): 100ml/100ml

Method 300.0
Instrument ID: IC-5
Sample Volume(s): 20ml/20ml

Method 310.1
Instrument ID: MET-1
Sample Volume(s): 50ml/50ml

Method 353.2
Instrument ID: Kone-1
Volume(s): 20ml/20ml

Method SM4500SD
Instrument ID: SPEC06
Volume(s): 25ml/25ml

Samples were received refrigerated to <6°C upon arrival at BC Laboratories, Inc. Samples were checked for preservation. Where applicable, sample preservation was adjusted in the laboratory.

Holding Time: All analyses and preparations took place within holding times.

Calibration: Initial calibration criteria were met. Frequency and accuracy criteria for initial and continuing calibration verifications were met.

Blanks: Method blank was prepared and analyzed at the required frequency. No detection of analytes of interest took place at or above the PQL. Initial and continuing calibration blanks were analyzed at the required frequencies and on an as needed basis.

Laboratory Control Sample: Laboratory control sample analysis was performed at the required frequency. All parameters were within QC limits.

Matrix Spikes and Duplicates: Matrix spike analyses were performed at the required frequencies. All accuracy and precision requirements were met. EPA Method 310.1 the sample Relative Percent Difference for Total Alkalinity as CaCO₃ was outside QC limits. EPA method SM4500SD Batch ID BJB0496-MS1 the matrix spike recoveries for Total Sulfide were outside QC limits.

Note: Method EPA 300.0 and EPA 353.2 client requested sample was not used for QC sample.



BC Laboratories, Inc.

Environmental Testing Laboratory Since 1949

Chain of Custody and Cooler Receipt Form for 1702918 Page 1 of 5

SHIP TO:		BILL TO:		DATE: 2/1/2017	
BC Laboratories 4100 Adams Court Bakersfield, CA 93308		Ametek Foster Wheeler 8210 Sky Park Court, Suite 200 San Diego, CA 92123		COC #: COC170291	
Project Name: Alameda Basewide Project Contact: Maria Mitchell Phone Number: (520) 830-3400 Project Phase: <i>(03)</i>		Attn: Lab Phone: <i>(520) 830-3400</i>		PAGE: 1 OF 2	
Project Name: 5023146068 Project Number: Kevin O'neill					
Project Manager: <i>Project Manager</i>					
Sample Information		Method for Analysis		RUSH	
No.	Sample ID	Date & Time Sampled	Matrix	Sample Type	
1	D03-03_170201	02/01/17 11:30	WG	N	X
2	DUP15_170201	02/01/17 10:00	WG	FD	Z
3	DUP16_170201	02/01/17 11:05	WG	FD	Z
4	M03-06_170201	02/01/17 08:30	WG	N	X
5	M03-10_170201	02/01/17 10:55	WG	N	X
6	M03-18_170201	02/01/17 09:00	WG	N	X
7	M03-19_170201	02/01/17 09:55	WG	N	X
8	MW360-1_170201	02/01/17 11:00	WG	N	X
9	MW360-4_170201	02/01/17 12:30	WG	N	X
10	P4-1-MWTB2_170201	02/01/17 09:10	WG	N	X
11	P-4-1-MWS6_170201	02/01/17 10:00	WG	N	X
12	54-TT-MW01_170201	02/01/17 10:30	WG	N	X
Samples Signature: <i>MW</i>		Time: 14:55	Time: 14:17	For Lab Use	
Relinquished By/Affiliation: <i>MLR</i>		Date: 2/1/17	Time: 14:55	Does COC match samples: Y or N	Comments: X=Analyze H=Hold Analysis Request
Received By: <i>DL</i>		Date: 2/1/17	Time: 14:55	Broken Container: Y or N	
Relinquished By/Affiliation: <i>DL</i>		Date: 2/1/17	Time: 14:55	COC seal intact: Y or N	
Received By: <i>DL</i>		Date: 2/1/17	Time: 14:55	Other problems: Y or N	
Relinquished By/Affiliation: <i>DL</i>		Date: 2/1/17	Time: 14:55	WSDOT contact: Y or N	
Received By: <i>DL</i>		Date: 2/1/17	Time: 14:55	Cooler Temperature at receipt: _____ °C	VOC short list is Benzene & Ethylbenzene only
Relinquished By/Affiliation: <i>DL</i>		Date: 2/1/17	Time: 14:55	Date: 2/1/17	Major Cations are Na, K, Ca, Mg
Received By (Lab): <i>DL</i>		Date: 2/1/17	Time: 14:55	Time: 14:55	NUMBER OF COOLERS SENT: 2230

BC

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Chain of Custody and Cooler Receipt Form for 1702918 Page 2 of 5

Project Name:		Project Contact:	Lab Phone#	Ship To:	Attn:	Disposal Instructions:	Shipment Method:	Date:	COC #:	Page:
Alameda Basewide	5023140096	Marina Medina	(503) 630-3400	9210 Sky Park Court, Suite 200	Amie Foster Wheeler	LAB FEDEX	FEDEX	2/1/2017	COC# 170201	2 OF 2
Project Number:	Karen Ohnes	Phone Number:		San Diego, CA 92123						
Project Manager:		Project Phone#								
SHIP TO: BC Laboratories 4100 Aliss Court Bakersfield, CA 93308 Attn: Lab Phone#										
Sample Information										
No.	Sample ID	Date & Time Sampled	Matrix	Sample Type	Methods for Analysis					
1	372-MW1_170201-13	02/01/17 13:00	WG	N	MS/MSD					
2	EB15_170201 - 14	02/01/17 14:30	WQ	E _B						
3	EB16_170201 - 15	02/01/17 14:45	WQ	E _B						
4	M03-05_170201 - 16	02/01/17 13:35	WG	N						
5	M03-17_170201 - 17	02/01/17 12:40	WG	N						
6	MW-02_170201 - 18	02/01/17 14:05	WG	N						
7										
8										
9										
10										
11										
12										
Sampler's Signature:		Time: 14:55		Time: 14:55		For Lab Use		Comments:		
Relinquished By/Affiliation:		Date: 2/1/17		Time: 14:55		Does COC match samples: Y or N		X=Analyze H=Hold Analysis Request		
Received By:		Date: 2/1/17		Time: 14:55		Broken Container: Y or N		Report DL/LOD/LOQ with Navy NIRIS valid values		
Relinquished By/Affiliation:		Date: 2/1/17		Time: 14:55		COC seal intact: Y or N				
Received By:		Date: 2/1/17		Time: 14:55		Other problems: Y or N		VOC short list is Benzene & Ethylbenzene only		
Relinquished By/Affiliation:		Date: 2/1/17		Time: 14:55		WSDOT contacted: Y or N		Major Contaminants are Na, K, Ca, Mg		
Received By (LAB):		Date: 2/1/17		Time: 14:55		Date contacted: _____		NUMBER OF COOLERS SENT:		
		Date: 2/1/17		Time: 14:55		Cooler Temperature at receipt: _____ °C				
		Date: 2/1/17		Time: 14:55		Date: 2/1/17		Time: 2230		

BC

Laboratories, Inc.

Environmental Testing Laboratory Since 1949

Chain of Custody and Cooler Receipt Form for 1702918 Page 3 of 5

BC LABORATORIES INC.		COOLER RECEIPT FORM				Page <u>1</u> Of <u>3</u>				
Submission #: <u>17-02918</u>										
SHIPPING INFORMATION FedEx <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____				SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S				
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: Custody Seals Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input type="checkbox"/> Comments: Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>										
All samples received? Yes <input type="checkbox"/> No <input type="checkbox"/> COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		All samples containers intact? Yes <input type="checkbox"/> No <input type="checkbox"/> Emissivity: <u>0.97</u> Container: <u>VOA</u> Thermometer ID: <u>207</u> Temperature: (A) <u>3.0</u> °C / (C) <u>3.2</u> °C Description(s) match COC? Yes <input type="checkbox"/> No <input type="checkbox"/> Date/Time <u>2/1/2017 2240</u> Analyst Init <u>GSP</u>								
SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	<u>096</u>	<u>A8c</u>	<u>A8c</u>	<u>A8c</u>	<u>A8c</u>	<u>A8c</u>	<u>A8c</u>	<u>A8c</u>	<u>A8c</u>	
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL										
QT EPA 50E&0R/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
3oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:

Sample Numbering Completed By:

A = Actual / C = Corrected

JDC

Date/Time:

2-2-17 1041

Rev 21 05/23/2016

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Laboratories, Inc.

Environmental Testing Laboratory Since 1949

Chain of Custody and Cooler Receipt Form for 1702918 Page 4 of 5

BC LABORATORIES INC.		COOLER RECEIPT FORM						Page <u>2</u> Of <u>3</u>		
Submission #: <u>17-02918</u>										
SHIPPING INFORMATION				SHIPPING CONTAINER			FREE LIQUID			
Fed Ex <input type="checkbox"/>	UPS <input type="checkbox"/>	Ontrac <input type="checkbox"/>	Hand Delivery <input type="checkbox"/>	Ice Chest <input checked="" type="checkbox"/>	None <input type="checkbox"/>	Box <input type="checkbox"/>	YES <input type="checkbox"/>	NO <input type="checkbox"/>		
BC Lab Field Service <input checked="" type="checkbox"/>				Other <input type="checkbox"/> (Specify) _____			Other <input type="checkbox"/> (Specify) _____			
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/>				Comments: _____						
Custody Seals		Ice Chest <input type="checkbox"/>	Containers <input type="checkbox"/>	None <input type="checkbox"/> Comments: _____						
Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>		Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>		All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.97</u>		Container: <u>VOA</u>		Thermometer ID: <u>207</u>		Date/Time: <u>2/2/2017 2240</u>		
Temperature: (A) <u>3.0</u> °C / (C) <u>3.2</u> °C								Analyst Init <u>GSP</u>		
SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr-6										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	<u>ABC</u>	<u>ABC</u>	<u>ABC</u>	<u>ABC</u>	<u>ABC</u>	<u>ABC</u>	<u>ABC</u>	<u>ABC</u>	<u>ABC</u>	
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA S25										
QT EPA S25 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA S270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
PERVIOUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: JNL

A = Actual / C = Corrected

Date/Time: 2-2-171041

Rev 21 05/23/2016

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Chain of Custody and Cooler Receipt Form for 1702918 Page 5 of 5

BC LABORATORIES INC.		COOLER RECEIPT FORM							Page <u>3</u> Of <u>3</u>			
Submission # <u>17-02918</u>												
SHIPPING INFORMATION								SHIPPING CONTAINER			FREE LIQUID	
Fed Ex <input type="checkbox"/>	UPS <input type="checkbox"/>	Ontrac <input type="checkbox"/>	Hand Delivery <input type="checkbox"/>	Ice Chest <input checked="" type="checkbox"/>	None <input type="checkbox"/>	Box <input type="checkbox"/>	YES <input type="checkbox"/>	NO <input type="checkbox"/>	W / S			
BC Lab Field Service <input checked="" type="checkbox"/>				Other <input type="checkbox"/> (Specify) _____			Other <input type="checkbox"/> (Specify) _____					
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____												
Custody Seals		Ice Chest <input type="checkbox"/>	Containers <input type="checkbox"/>	None <input type="checkbox"/> Comments: _____			<u>X</u>					
		Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>	Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>									
All samples received? Yes <input type="checkbox"/> No <input type="checkbox"/>		All samples containers intact? Yes <input type="checkbox"/> No <input type="checkbox"/>		Description(s) match COC? Yes <input type="checkbox"/> No <input type="checkbox"/>								
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.98</u>		Container: <u>Amber</u>		Thermometer ID: <u>207</u>		Date/Time <u>2/1/2016 2240</u>		Analyst Init <u>6SP</u>		
Temperature: (A) <u>1.1</u> °C / (C) <u>1.2</u> °C												
SAMPLE CONTAINERS		SAMPLE NUMBERS										
QT PE UNPRES	<u>5930</u>	2	3	4	5	6	7	8	9	10		
4oz / 8oz / 16oz PE UNPRES		13										
2oz Cr ⁶⁺												
QT INORGANIC CHEMICAL METALS												
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz												
PT CYANIDE												
PT NITROGEN FORMS												
PT TOTAL SULFIDE	<u>VW, X</u>											
2oz NITRATE / NITRITE												
PT TOTAL ORGANIC CARBON												
PT CHEMICAL OXYGEN DEMAND												
PTA PHENOLICS												
40ml VOA VIAL TRAVEL BLANK												
40ml VOA VIAL												
QT EPA 1664												
PT ODOR												
RADIOLOGICAL												
BACTERIOLOGICAL												
40 ml VOA VIAL - 504												
QT EPA 508608/3080												
QT EPA 515.1/8150												
QT EPA 525												
QT EPA 525 TRAVEL BLANK												
40ml EPA 547												
40ml EPA 531.1												
8oz EPA 548												
QT EPA 549												
QT EPA 8015M												
QT EPA 8270												
3oz / 16oz / 32oz AMBER												
3oz / 16oz / 32oz JAR												
SOIL SLEEVE												
ICB VIAL												
LASTIC BAG												
EDLAR BAG												
ERROUS IRON												
INCORE												
MART KIT												
UMMA CANISTER												
Comments: _____												
Sample Numbering Completed By: <u>JPL</u> Date/Time: <u>2-2-17 1041</u> Rev 21 05/23/2016												
- Actual / C = Corrected												



Laboratories, Inc.

Environmental Testing Laboratory Since 1949

AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

BC Laboratories
4100 Atlas Court
Bakersfield, CA 93308
Phone: 661-327-4911

SDG: 17-02918

Class: WET

Method: EPA-160.1



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ANALYSES DATA PACKAGE COVER PAGE**EPA-160.1**

Laboratory: BC Laboratories

SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN

Project: Alameda

Client Sample Id:P4-1-MWIB2_170201**Lab Sample Id:**1702918-10

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature:

Sara Guron

Name:

Sara Guron

Date:

03-06-2017

Title:

QA/QC Manager



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

METHOD DETECTION AND REPORTING LIMITS**EPA-160.1****Laboratory:** BC Laboratories**SDG:** 17-02918**Client:** AMEC Environmental & Infrastructure \$AMCN**Project:** Alameda**Matrix:** Water**Instrument:** MANUAL

Analyte	DL	LOD	LOQ	Units
Total Dissolved Solids @ 180 C	10	10	10	mg/L



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INORGANIC ANALYSIS DATA SHEET
EPA-160.1

P4-1-MWIB2_170201

Laboratory: BC Laboratories

SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN

Project: Alameda

Matrix: Water

Laboratory ID: 1702918-10

File ID:

Sampled: 02/01/17 09:10

Prepared: 02/06/17 11:00

Analyzed: 02/06/17 11:00

Solids: 0.00

Preparation: No Prep

Initial/Final: 100 ml / 100 ml

Batch: B[B0473

Sequence: 1702121

Calibration: UNASSIGNED

Instrument: MANUAL

CAS NO.	Analyte	Concentration (mg/L)	DL	LOD	LOQ	Dilution Factor	Q	Method
---	Total Dissolved Solids @ 180 C	1400	100	100	100	10	D	EPA-160.1



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

PREPARATION BATCH SUMMARY**EPA-160.1**

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Batch: B[B0473 Batch Matrix: Water Preparation: No Prep

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
P4-1-MWIB2_170201	1702918-10		02/06/17 11:00	
Blank	B[B0473-BLK1		02/06/17 11:00	
LCS	B[B0473-BS1		02/06/17 11:00	
P4-1-MWIB2_170201	B[B0473-DUP1		02/06/17 11:00	



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

METHOD BLANK DATA SHEET EPA-160.1

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Matrix: Water Laboratory ID: B[B0473-BLK1 File ID:
Prepared: 02/06/17 11:00 Preparation: No Prep Initial/Final: 100 ml / 100 ml
Analyzed: 02/06/17 11:00 Instrument: MANUAL
Batch: B[B0473 Sequence: 1702121 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
---	Total Dissolved Solids @ 180 C	6.7	6.7	6.7	6.7	UD



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

DUPLICATES

EPA-160.1

P4-1-MWIB2 170201

Laboratory: BC Laboratories

SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN

Project: Alameda

Matrix: Water

Laboratory ID: B[B0473-DUP1

Batch: B[B0473

Lab Source ID: 1702918-10

Preparation: No Prep

Initial/Final: 100 ml / 100 ml

Source Sample Name: P4-1-MWIB2_170201

% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (mg/L)	C	DUPLICATE CONCENTRATION (mg/L)	C	RPD %	Q	METHOD
Total Dissolved Solids @ 180 C	10	1380.0		1420.0		2.86		EPA-160.1

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

LCS RECOVERY**EPA-160.1**

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Matrix: Water
Batch: B[B0473 Laboratory ID: B[B0473-BS1
Preparation: No Prep Initial/Final: 20 ml / 20 ml

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC. #	QC LIMITS REC.
Total Dissolved Solids @ 180 C	586.00	585.00	99.8	90 - 110

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ANALYSIS BATCH (SEQUENCE) SUMMARY EPA-160.1

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Sequence: 1702121 Instrument: MANUAL
Matrix: Water Calibration: UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Blank	B[B0473-BLK1		02/06/17 11:00
LCS	B[B0473-BS1		02/06/17 11:00
P4-1-MWIB2_170201	1702918-10		02/06/17 11:00
P4-1-MWIB2_170201	B[B0473-DUP1		02/06/17 11:00



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

HOLDING TIME SUMMARY**EPA-160.1**

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
P4-1-MWIB2_170201	02/01/17 09:10	02/01/17 22:30	02/06/17 11:00	5.00	7.00	02/06/17 11:00	5.00	7.00	

* Holding time not met

Note: If Prep or Analysis are performed within the hour (if holding time is based on hours) or within the day (if holding time is based on days), then the sample is not flagged as outside holding times. Calculated number of days are based on date received or date prepared depending on the test.



Laboratories, Inc.

Environmental Testing Laboratory Since 1949

AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

BC Laboratories
4100 Atlas Court
Bakersfield, CA 93308
Phone: 661-327-4911

SDG: 17-02918

Class: WET

Method: EPA-300.0



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ANALYSES DATA PACKAGE COVER PAGE**EPA-300.0**

Laboratory: BC Laboratories

SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN

Project: Alameda

Client Sample Id:P4-1-MWIB2_170201**Lab Sample Id:**1702918-10RE1

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature:

Sara Guron

Name:

Sara Guron

Date:

03-06-2017

Title:

QA/QC Manager



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

METHOD DETECTION AND REPORTING LIMITS**EPA-300.0****Laboratory:** BC Laboratories**SDG:** 17-02918**Client:** AMEC Environmental & Infrastructure \$AMCN**Project:** Alameda**Matrix:** Water**Instrument:** IC5

Analyte	DL	LOD	LOQ	Units
Chloride	0.092	0.1	0.5	mg/L
Nitrate as NO ₃	0.096	0.23	0.44	mg/L
Nitrate as N	0.022	0.05	0.1	mg/L
Sulfate	0.14	0.2	1	mg/L



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

**INORGANIC ANALYSIS DATA SHEET
EPA-300.0****P4-1-MWIB2_170201**

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Matrix: Water Laboratory ID: 1702918-10RE1 File ID: E020217.seq-40
Sampled: 02/01/17 09:10 Prepared: 02/02/17 15:00 Analyzed: 02/03/17 03:32
Solids: 0.00 Preparation: No Prep Initial/Final: 20 ml / 20 ml
Batch: B[B0227 Sequence: 1702247 Calibration: UNASSIGNED Instrument: IC5

CAS NO.	Analyte	Concentration (mg/L)	DL	LOD	LOQ	Dilution Factor	Q	Method
16887-00-6	Chloride	280	0.18	0.20	1.0	2	D	EPA-300.0
14797-55-8	Nitrate as N	0.61	0.044	0.10	0.20	2	D	EPA-300.0
14808-79-8	Sulfate	110	0.28	0.40	2.0	2	D	EPA-300.0



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

PREPARATION BATCH SUMMARY**EPA-300.0**

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Batch: B[B0227 Batch Matrix: Water Preparation: No Prep

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
P4-1-MWIB2_170201	1702918-10RE1	E020217.seq-40	02/02/17 15:00	Added 2/8/2017 by JSW
Blank	B[B0227-BLK1	E020217.seq-77	02/02/17 15:00	
LCS	B[B0227-BS1	E020217.seq-78	02/02/17 15:00	
Duplicate	B[B0227-DUP1	E020217.seq-79	02/02/17 15:00	
Matrix Spike	B[B0227-MS1	E020217.seq-80	02/02/17 15:00	
Matrix Spike Dup	B[B0227-MSD1	E020217.seq-81	02/02/17 15:00	



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San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

METHOD BLANK DATA SHEET EPA-300.0

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Matrix: Water Laboratory ID: B[B0227-BLK1 File ID: E020217.seq-77
Prepared: 02/02/17 15:00 Preparation: No Prep Initial/Final: 20 ml / 20 ml
Analyzed: 02/03/17 15:16 Instrument: IC5
Batch: B[B0227 Sequence: 1702247 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
16887-00-6	Chloride	0.10	0.092	0.10	0.50	U
14797-55-8	Nitrate as N	0.050	0.022	0.050	0.10	U
14808-79-8	Sulfate	0.20	0.14	0.20	1.0	U



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Project Manager: Kelli Miller

DUPLICATES**Duplicate****EPA-300.0**Laboratory: BC LaboratoriesSDG: 17-02918Client: AMEC Environmental & Infrastructure \$AMCNProject: AlamedaMatrix: WaterLaboratory ID: B[B0227-DUP1Batch: B[B0227Lab Source ID: 1702917-10RE1Preparation: No PrepInitial/Final: 20 ml / 20 mlSource Sample Name: Duplicate

% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (mg/L)	C	DUPLICATE CONCENTRATION (mg/L)	C	RPD %	Q	METHOD
Chloride	10	1854.2		1886.6		1.73		EPA-300.0
Nitrate as NO ₃	10	ND		ND				EPA-300.0
Nitrate as N	10	ND		ND				EPA-300.0
Sulfate	10	32.300		32.540		0.740		EPA-300.0

* Values outside of QC limits



AMEC Environmental & Infrastructure
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Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA-300.0

Matrix Spike

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>		
Batch:	<u>B[B0227</u>	Laboratory ID:	<u>B[B0227-MS1</u>
Preparation:	<u>No Prep</u>	Initial/Final:	<u>19.8 ml / 20 ml</u>

Source Sample Number: 1702917-10RE1

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC. #	QC LIMITS REC.
Chloride	1010.1	1854.2	2900.5	104	80 - 120
Nitrate as NO3	447.15	ND	451.80	101	80 - 120
Nitrate as N	101.01	ND	102.06	101	80 - 120
Sulfate	2020.2	32.300	2089.0	102	80 - 120

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC. #	% RPD #	QC LIMITS RPD	REC.
Chloride	1010.1	2903.5	104	0.104	10	80 - 120
Nitrate as NO3	447.15	446.70	99.9	1.13	10	80 - 120
Nitrate as N	101.01	100.91	99.9	1.13	10	80 - 120
Sulfate	2020.2	2081.8	101	0.346	10	80 - 120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits



AMEC Environmental & Infrastructure
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Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

LCS RECOVERY**EPA-300.0**

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Matrix: Water
Batch: B[B0227 Laboratory ID: B[B0227-BS1
Preparation: No Prep Initial/Final: 20 ml / 20 ml

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC. #	QC LIMITS REC.
Chloride	50.000	51.081	102	90 - 110
Nitrate as NO ₃	22.134	22.444	101	90 - 110
Nitrate as N	5.0000	5.0700	101	90 - 110
Sulfate	100.00	101.52	102	90 - 110

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ANALYSIS BATCH (SEQUENCE) SUMMARY EPA-300.0

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Sequence: 1702247 Instrument: IC5
Matrix: Water Calibration: UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check	1702247-ICV1	E020217.seq-01	02/02/17 15:48
Initial Cal Blank	1702247-ICB1	E020217.seq-02	02/02/17 16:05
Calibration Check	1702247-CCV1	E020217.seq-13	02/02/17 19:16
Calibration Blank	1702247-CCB1	E020217.seq-14	02/02/17 19:34
Calibration Check	1702247-CCV2	E020217.seq-25	02/02/17 22:45
Calibration Blank	1702247-CCB2	E020217.seq-26	02/02/17 23:02
Calibration Check	1702247-CCV3	E020217.seq-37	02/03/17 02:39
Calibration Blank	1702247-CCB3	E020217.seq-38	02/03/17 02:57
P4-1-MWIB2_170201	1702918-10RE1	E020217.seq-40	02/03/17 03:32
Calibration Check	1702247-CCV4	E020217.seq-42	02/03/17 04:06
Calibration Blank	1702247-CCB4	E020217.seq-43	02/03/17 04:24
Calibration Check	1702247-CCV5	E020217.seq-54	02/03/17 07:35
Calibration Blank	1702247-CCB5	E020217.seq-55	02/03/17 07:53
Calibration Check	1702247-CCV6	E020217.seq-66	02/03/17 11:04
Calibration Blank	1702247-CCB6	E020217.seq-67	02/03/17 11:21
Calibration Check	1702247-CCV7	E020217.seq-75	02/03/17 13:41
Calibration Blank	1702247-CCB7	E020217.seq-76	02/03/17 13:58
Blank	B[B0227-BLK1	E020217.seq-77	02/03/17 15:16
LCS	B[B0227-BS1	E020217.seq-78	02/03/17 15:33
Duplicate	B[B0227-DUP1	E020217.seq-79	02/03/17 15:50
Matrix Spike	B[B0227-MS1	E020217.seq-80	02/03/17 16:08
Matrix Spike Dup	B[B0227-MSD1	E020217.seq-81	02/03/17 16:25
Calibration Check	1702247-CCV8	E020217.seq-87	02/03/17 18:09
Calibration Blank	1702247-CCB8	E020217.seq-88	02/03/17 18:27
Calibration Check	1702247-CCV9	E020217.seq-99	02/03/17 21:38
Calibration Blank	1702247-CCB9	E020217.seq-100	02/03/17 21:56



AMEC Environmental & Infrastructure
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Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ANALYSIS BATCH (SEQUENCE) SUMMARY EPA-300.0

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Sequence: 1702247 Instrument: IC5
Matrix: Water Calibration: UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	1702247-CCVA	E020217.seq-106	02/03/17 23:40
Calibration Blank	1702247-CCBA	E020217.seq-107	02/03/17 23:57



AMEC Environmental & Infrastructure
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San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

**BLANKS
EPA-300.0**Laboratory: BC LaboratoriesSDG: 17-02918Client: AMEC Environmental & Infrastructure \$AMCNInstrument ID: IC5 Project: AlamedaSequence: 1702247 Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	DL	LOD	LOQ	Units	C	Method
1702247-ICB1	Chloride	0.0000	0.092		0.50	mg/L	U	EPA-300.0
	Nitrate as NO ₃	0.0000	0.096		0.44	mg/L	U	EPA-300.0
	Nitrate as N	0.0000	0.022		0.10	mg/L	U	EPA-300.0
	Sulfate	0.0000	0.14		1.0	mg/L	U	EPA-300.0
1702247-CCB1	Chloride	0.0000	0.092		0.50	mg/L	U	EPA-300.0
	Nitrate as NO ₃	0.0000	0.096		0.44	mg/L	U	EPA-300.0
	Nitrate as N	0.0000	0.022		0.10	mg/L	U	EPA-300.0
	Sulfate	0.0000	0.14		1.0	mg/L	U	EPA-300.0
1702247-CCB2	Chloride	0.0000	0.092		0.50	mg/L	U	EPA-300.0
	Nitrate as NO ₃	0.0000	0.096		0.44	mg/L	U	EPA-300.0
	Nitrate as N	0.0000	0.022		0.10	mg/L	U	EPA-300.0
	Sulfate	0.0000	0.14		1.0	mg/L	U	EPA-300.0
1702247-CCB3	Chloride	0.0000	0.092		0.50	mg/L	U	EPA-300.0
	Nitrate as NO ₃	0.0000	0.096		0.44	mg/L	U	EPA-300.0
	Nitrate as N	0.0000	0.022		0.10	mg/L	U	EPA-300.0
	Sulfate	0.0000	0.14		1.0	mg/L	U	EPA-300.0
1702247-CCB4	Chloride	0.0000	0.092		0.50	mg/L	U	EPA-300.0
	Nitrate as NO ₃	0.0000	0.096		0.44	mg/L	U	EPA-300.0
	Nitrate as N	0.0000	0.022		0.10	mg/L	U	EPA-300.0
	Sulfate	0.0000	0.14		1.0	mg/L	U	EPA-300.0
1702247-CCB5	Chloride	0.0000	0.092		0.50	mg/L	U	EPA-300.0
	Nitrate as NO ₃	0.0000	0.096		0.44	mg/L	U	EPA-300.0
	Nitrate as N	0.0000	0.022		0.10	mg/L	U	EPA-300.0
	Sulfate	0.0000	0.14		1.0	mg/L	U	EPA-300.0
1702247-CCB6	Chloride	0.0000	0.092		0.50	mg/L	U	EPA-300.0
	Nitrate as NO ₃	0.0000	0.096		0.44	mg/L	U	EPA-300.0
	Nitrate as N	0.0000	0.022		0.10	mg/L	U	EPA-300.0
	Sulfate	0.0000	0.14		1.0	mg/L	U	EPA-300.0



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

**BLANKS
EPA-300.0**Laboratory: BC LaboratoriesSDG: 17-02918Client: AMEC Environmental & Infrastructure \$AMCNInstrument ID: IC5 Project: AlamedaSequence: 1702247 Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	DL	LOD	LOQ	Units	C	Method
1702247-CCB7	Chloride	0.0000	0.092		0.50	mg/L	U	EPA-300.0
	Nitrate as NO ₃	0.0000	0.096		0.44	mg/L	U	EPA-300.0
	Nitrate as N	0.0000	0.022		0.10	mg/L	U	EPA-300.0
	Sulfate	0.0000	0.14		1.0	mg/L	U	EPA-300.0
1702247-CCB8	Chloride	0.0000	0.092		0.50	mg/L	U	EPA-300.0
	Nitrate as NO ₃	0.0000	0.096		0.44	mg/L	U	EPA-300.0
	Nitrate as N	0.0000	0.022		0.10	mg/L	U	EPA-300.0
	Sulfate	0.0000	0.14		1.0	mg/L	U	EPA-300.0
1702247-CCB9	Chloride	0.0000	0.092		0.50	mg/L	U	EPA-300.0
	Nitrate as NO ₃	0.0000	0.096		0.44	mg/L	U	EPA-300.0
	Nitrate as N	0.0000	0.022		0.10	mg/L	U	EPA-300.0
	Sulfate	0.0000	0.14		1.0	mg/L	U	EPA-300.0
1702247-CCBA	Chloride	0.0000	0.092		0.50	mg/L	U	EPA-300.0
	Nitrate as NO ₃	0.0000	0.096		0.44	mg/L	U	EPA-300.0
	Nitrate as N	0.0000	0.022		0.10	mg/L	U	EPA-300.0
	Sulfate	0.0000	0.14		1.0	mg/L	U	EPA-300.0



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Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INITIAL AND CONTINUING CALIBRATION CHECK

EPA-300.0

Laboratory: BC Laboratories

SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN

Project: Alameda

Instrument ID: IC5

Calibration: UNASSIGNED

Control Limt: +/- 10.00%

Sequence: 1702247

Lab Sample ID	Analyte	True	Found	%R	Units	Method
1702247-ICV1	Chloride	50.000	50.483	101	mg/L	EPA-300.0
	Nitrate as NO ₃	22.134	22.174	100	mg/L	EPA-300.0
	Nitrate as N	5.0000	5.0090	100	mg/L	EPA-300.0
	Sulfate	100.00	100.57	101	mg/L	EPA-300.0
1702247-CCV1	Chloride	50.000	51.630	103	mg/L	EPA-300.0
	Nitrate as NO ₃	22.134	22.240	100	mg/L	EPA-300.0
	Nitrate as N	5.0000	5.0240	100	mg/L	EPA-300.0
	Sulfate	100.00	101.15	101	mg/L	EPA-300.0
1702247-CCV2	Chloride	50.000	51.020	102	mg/L	EPA-300.0
	Nitrate as NO ₃	22.134	22.351	101	mg/L	EPA-300.0
	Nitrate as N	5.0000	5.0490	101	mg/L	EPA-300.0
	Sulfate	100.00	101.07	101	mg/L	EPA-300.0
1702247-CCV3	Chloride	50.000	50.042	100	mg/L	EPA-300.0
	Nitrate as NO ₃	22.134	21.824	98.6	mg/L	EPA-300.0
	Nitrate as N	5.0000	4.9300	98.6	mg/L	EPA-300.0
	Sulfate	100.00	98.563	98.6	mg/L	EPA-300.0
1702247-CCV4	Chloride	50.000	49.834	99.7	mg/L	EPA-300.0
	Nitrate as NO ₃	22.134	21.780	98.4	mg/L	EPA-300.0
	Nitrate as N	5.0000	4.9200	98.4	mg/L	EPA-300.0
	Sulfate	100.00	98.792	98.8	mg/L	EPA-300.0
1702247-CCV5	Chloride	50.000	50.257	101	mg/L	EPA-300.0
	Nitrate as NO ₃	22.134	21.944	99.1	mg/L	EPA-300.0
	Nitrate as N	5.0000	4.9570	99.1	mg/L	EPA-300.0
	Sulfate	100.00	99.841	99.8	mg/L	EPA-300.0
1702247-CCV6	Chloride	50.000	50.661	101	mg/L	EPA-300.0
	Nitrate as NO ₃	22.134	21.749	98.3	mg/L	EPA-300.0
	Nitrate as N	5.0000	4.9130	98.3	mg/L	EPA-300.0
	Sulfate	100.00	100.39	100	mg/L	EPA-300.0
1702247-CCV7	Chloride	50.000	51.590	103	mg/L	EPA-300.0
	Nitrate as NO ₃	22.134	22.541	102	mg/L	EPA-300.0
	Nitrate as N	5.0000	5.0920	102	mg/L	EPA-300.0



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Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INITIAL AND CONTINUING CALIBRATION CHECK**EPA-300.0**

Laboratory: BC Laboratories

SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN

Project: Alameda

Instrument ID: IC5

Calibration: UNASSIGNED

Control Limt: +/- 10.00%

Sequence: 1702247

Lab Sample ID	Analyte	True	Found	%R	Units	Method
1702247-CCV7	Sulfate	100.00	101.80	102	mg/L	EPA-300.0
1702247-CCV8	Chloride	50.000	51.435	103	mg/L	EPA-300.0
	Nitrate as NO ₃	22.134	22.417	101	mg/L	EPA-300.0
	Nitrate as N	5.0000	5.0640	101	mg/L	EPA-300.0
	Sulfate	100.00	102.24	102	mg/L	EPA-300.0
1702247-CCV9	Chloride	50.000	51.561	103	mg/L	EPA-300.0
	Nitrate as NO ₃	22.134	22.506	102	mg/L	EPA-300.0
	Nitrate as N	5.0000	5.0840	102	mg/L	EPA-300.0
	Sulfate	100.00	101.69	102	mg/L	EPA-300.0
1702247-CCVA	Chloride	50.000	51.266	103	mg/L	EPA-300.0
	Nitrate as NO ₃	22.134	22.214	100	mg/L	EPA-300.0
	Nitrate as N	5.0000	5.0180	100	mg/L	EPA-300.0
	Sulfate	100.00	101.03	101	mg/L	EPA-300.0

* Values outside of QC limits



AMEC Environmental & Infrastructure
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San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

HOLDING TIME SUMMARY**EPA-300.0**

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
P4-1-MWIB2_170201	02/01/17 09:10	02/01/17 22:30	02/02/17 15:00	2.00	28.00	02/03/17 03:32	2.00	28.00	
P4-1-MWIB2_170201	02/01/17 09:10	02/01/17 22:30	02/02/17 15:00	1.77	2.00	02/03/17 03:32	1.77	2.00	

* Holding time not met

Note: If Prep or Analysis are performed within the hour (if holding time is based on hours) or within the day (if holding time is based on days), then the sample is not flagged as outside holding times. Calculated number of days are based on date received or date prepared depending on the test.



Laboratories, Inc.

Environmental Testing Laboratory Since 1949



Raw Data From Instrument IC5



Laboratories, Inc.

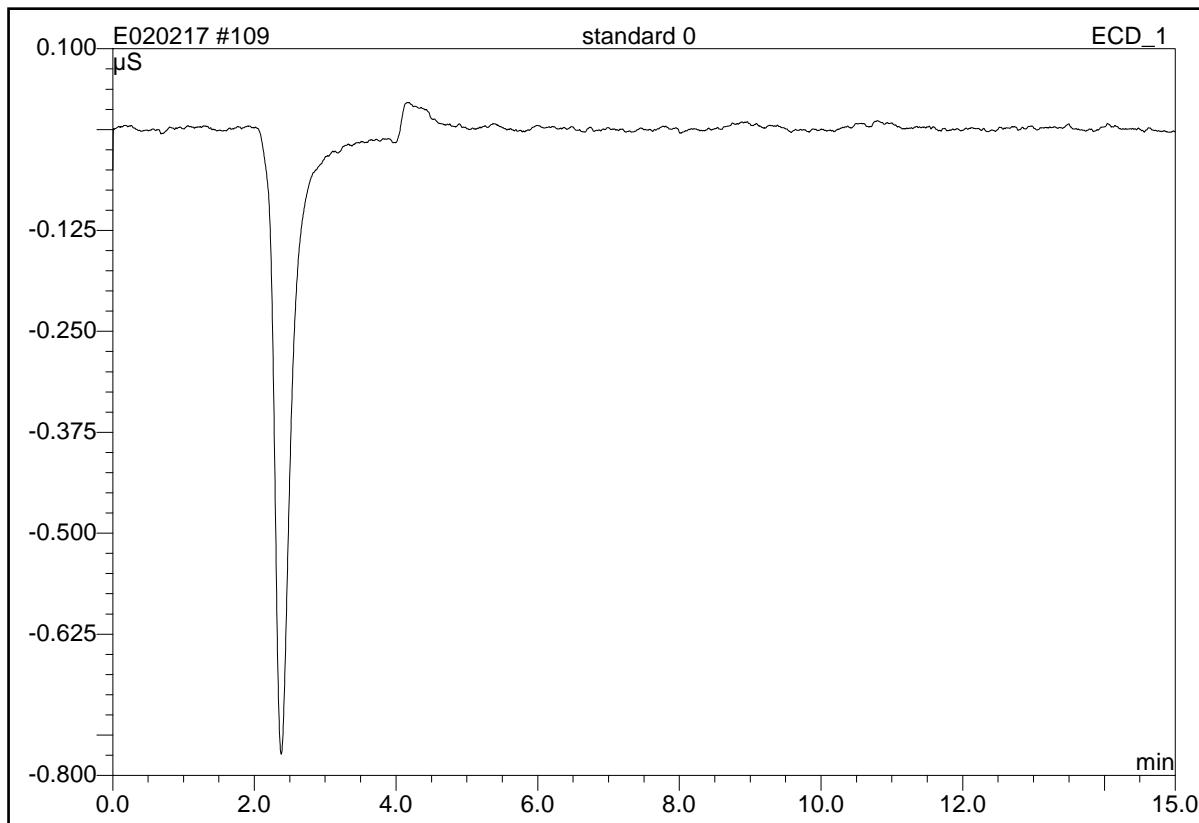
Environmental Testing Laboratory Since 1949



Raw Data - Calibration Standards

109 standard 0

Sample Name:	standard 0	Injection Volume:	20.0
Vial Number:	17	Channel:	IC5
Sample Type:	standard	Wavelength:	n.a.
Control Program:	IC5	Bandwidth:	n.a.
Quantif. Method:	IC5 ANION	Dilution Factor:	1.0000
Recording Time:	1/31/2017 20:52	Sample Weight:	1.0000
Run Time (min):	15.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount ppm	Type
Total:			0.000	0.000	0.00	0.000	

modified on: n.a.

By: OLH/EMW/JSW

* = Manual integrations due to peak, rider, or baseline errors.

B = Baseline with direct contact on the left or right side of peak.

b = Baseline is below non resolved peaks drawn from peak end to peak end.

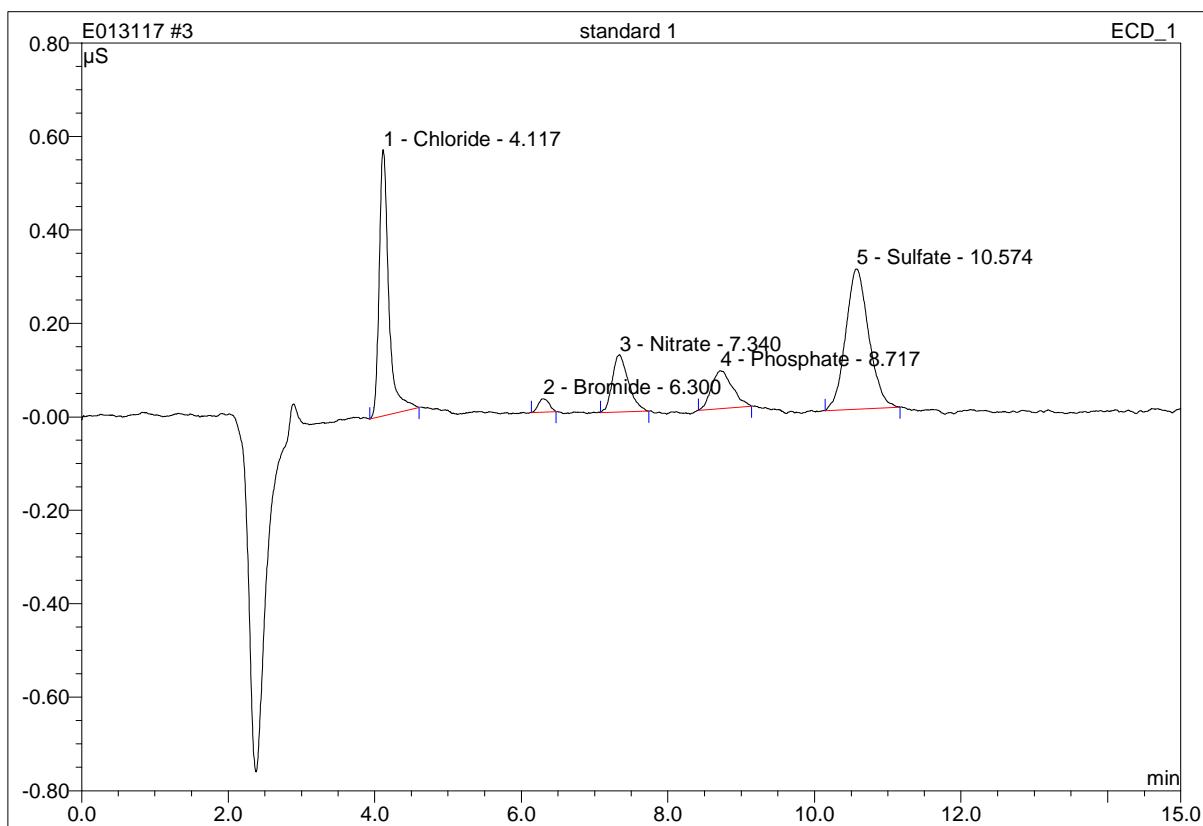
M = Main

R = Rider

BMB = This peak type is for resolved peaks.

3 standard 1

Sample Name:	standard 1	Injection Volume:	20.0
Vial Number:	18	Channel:	IC5
Sample Type:	standard	Wavelength:	n.a.
Control Program:	IC5	Bandwidth:	n.a.
Quantif. Method:	IC5 ANION	Dilution Factor:	1.0000
Recording Time:	1/31/2017 21:10	Sample Weight:	1.0000
Run Time (min):	15.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount ppm	Type
1	4.12	Chloride	0.569	0.086	33.22	0.521	BMB
2	6.30	Bromide	0.029	0.005	1.92	0.089	BMB
3	7.34	Nitrate	0.122	0.031	12.09	0.096	BMB
4	8.72	Phosphate	0.081	0.027	10.36	0.177	BMB
5	10.57	Sulfate	0.300	0.109	42.41	1.012	BMB
Total:			1.101	0.258	100.00	1.895	

modified on: n.a.

By: OLH/EMW/JSW

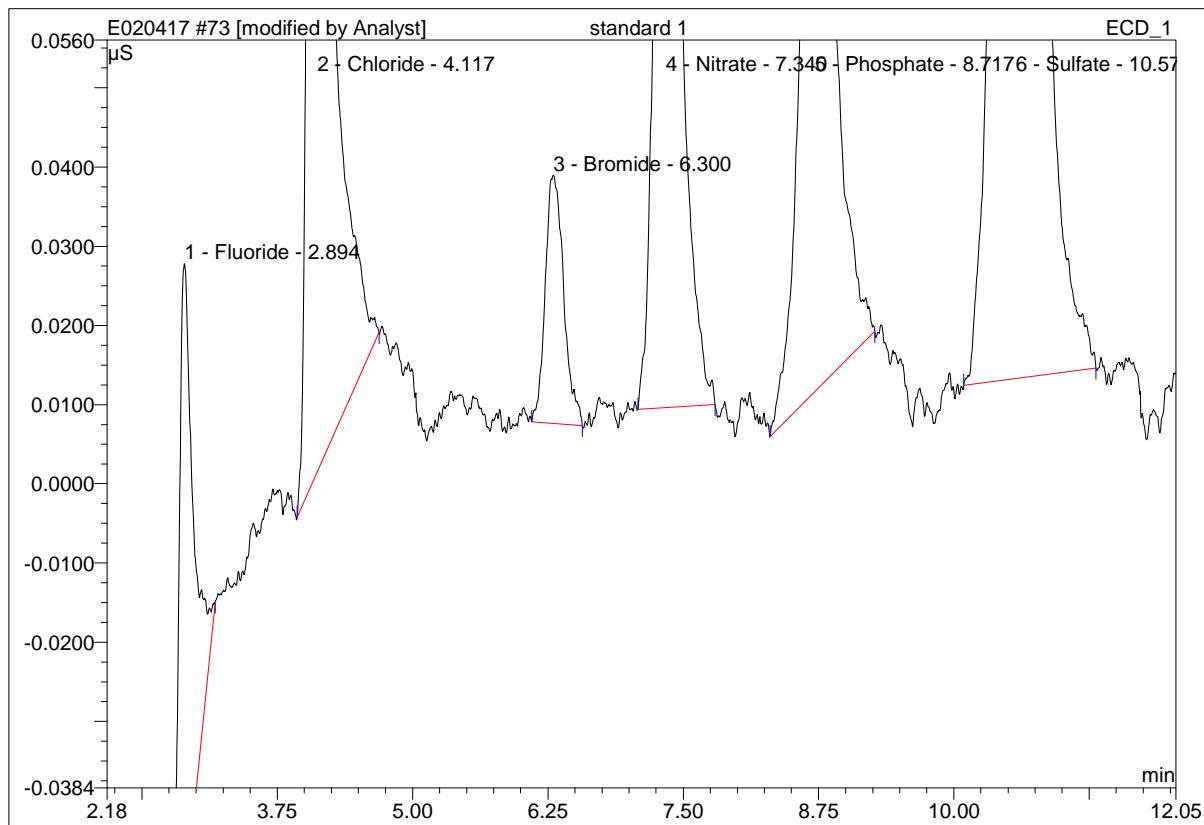
* = Manual integrations due to peak, rider or baseline error.

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b = Baseline is below non resolved peaks drawn from peak end to peak end.
M = Main
R= Rider
BMB = This peak type is for resolved peaks.

73 standard 1

Sample Name:	standard 1	Injection Volume:	20.0
Vial Number:	18	Channel:	IC5
Sample Type:	standard	Wavelength:	n.a.
Control Program:	IC5	Bandwidth:	n.a.
Quantif. Method:	IC5 ANION	Dilution Factor:	1.0000
Recording Time:	1/31/2017 21:10	Sample Weight:	1.0000
Run Time (min):	15.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppm	Type
1	2.89	Fluoride	0.081	0.013	4.58	0.053	BMB*
2	4.12	Chloride	0.570	0.087	30.65	0.525	BMB*
3	6.30	Bromide	0.031	0.006	2.17	0.100	BMB*
4	7.34	Nitrate	0.123	0.032	11.28	0.097	BMB*
5	8.72	Phosphate	0.087	0.032	11.24	0.195	BMB*
6	10.57	Sulfate	0.303	0.114	40.07	1.029	BMB*
Total:			1.197	0.284	100.00	1.999	

modified on: 01.31.17 22:59 By: OLH/EMW/JSW

* = Manual integrations due to peak, rider or baseline error.

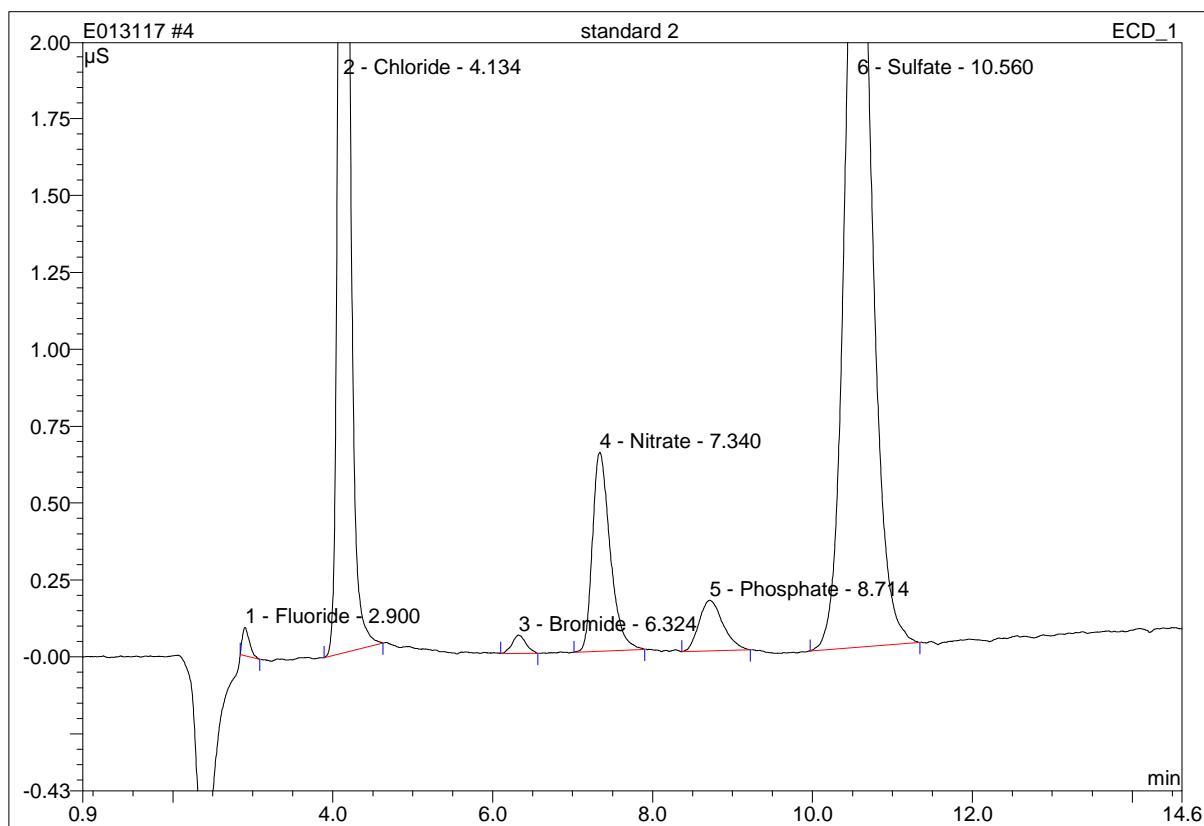
close up/Integration

Chromleon (c) Dionex 1996-2006
Version 6.80 SR15 Build 4656 (243203)

B = Baseline with direct contact on the left or right side of peak.
b = Baseline is below non resolved peaks drawn from peak end to peak end.
M = Main
R= Rider
BMB = This peak type is for resolved peaks.

4 standard 2

Sample Name:	standard 2	Injection Volume:	20.0
Vial Number:	18	Channel:	IC5
Sample Type:	standard	Wavelength:	n.a.
Control Program:	IC5	Bandwidth:	n.a.
Quantif. Method:	IC5 ANION	Dilution Factor:	1.0000
Recording Time:	1/31/2017 21:27	Sample Weight:	1.0000
Run Time (min):	15.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount ppm	Type
1	2.90	Fluoride	0.092	0.009	0.44	0.047	BMB
2	4.13	Chloride	5.606	0.776	36.53	3.818	BMB
3	6.32	Bromide	0.060	0.012	0.56	0.182	BMB
4	7.34	Nitrate	0.646	0.166	7.82	0.430	BMB
5	8.71	Phosphate	0.165	0.057	2.69	0.333	BMB
6	10.56	Sulfate	3.014	1.105	51.97	7.864	BMB
Total:			9.582	2.125	100.00	12.675	

modified on: n.a.

By: OLH/EMW/JSW

* = Manual integrations due to peak, rider or baseline error.

close up/Integration

Chromleon (c) Dionex 1996-2006
Version 6.80 SR15 Build 4656 (243203)

B = Baseline with direct contact on the left or right side of peak.

b = Baseline is below non resolved peaks drawn from peak end to peak end.

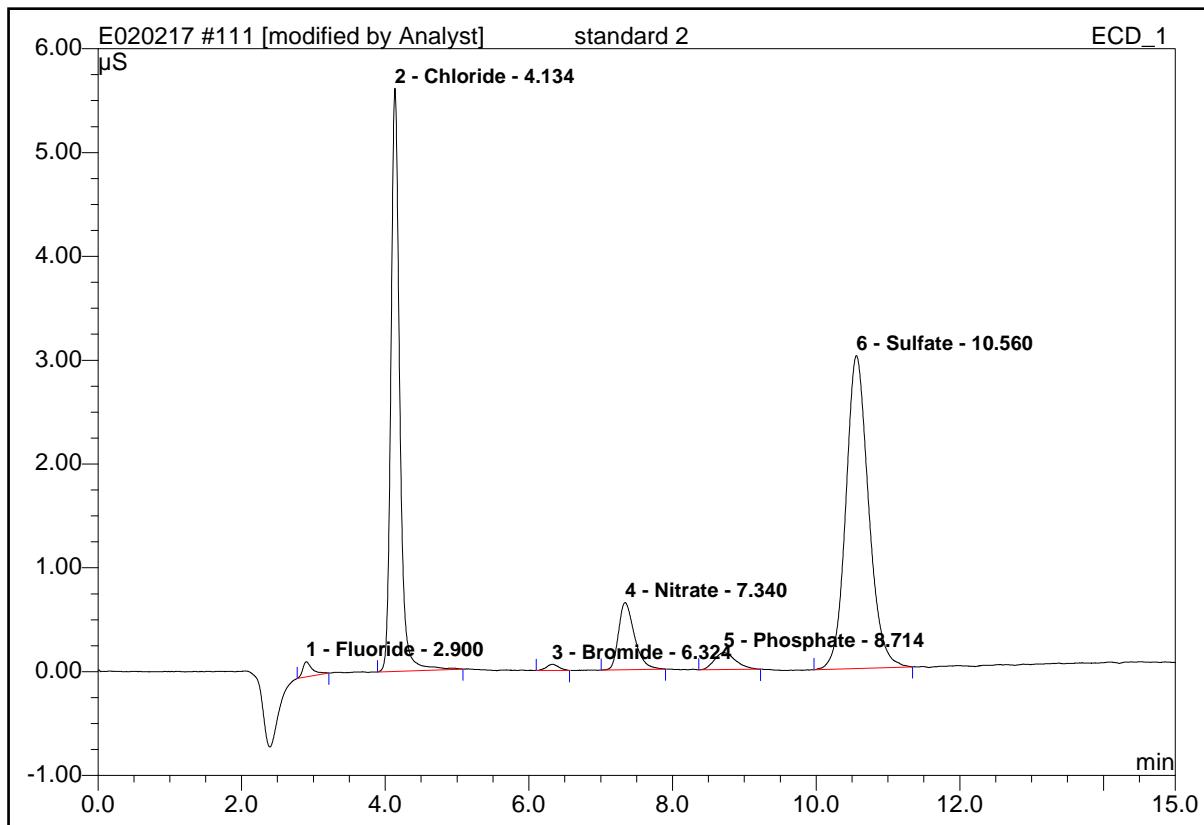
M = Main

R= Rider

BMB = This peak type is for resolved peaks.

111 standard 2

Sample Name:	standard 2	Injection Volume:	20.0
Vial Number:	18	Channel:	IC5
Sample Type:	standard	Wavelength:	n.a.
Control Program:	IC5	Bandwidth:	n.a.
Quantif. Method:	IC5 ANION	Dilution Factor:	1.0000
Recording Time:	1/31/2017 21:27	Sample Weight:	1.0000
Run Time (min):	15.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount ppm	Type
1	2.90	Fluoride	0.147	0.023	1.06	0.093	BMB*
2	4.13	Chloride	5.616	0.794	36.83	3.896	BMB*
3	6.32	Bromide	0.060	0.012	0.55	0.182	BMB
4	7.34	Nitrate	0.646	0.166	7.70	0.430	BMB*
5	8.71	Phosphate	0.165	0.057	2.65	0.333	BMB
6	10.56	Sulfate	3.014	1.105	51.21	7.864	BMB
Total:			9.647	2.157	100.00	12.799	

modified on: 01.31.17 23:00 By: OLH/EMW/JSW

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b = Baseline is below non resolved peaks drawn from peak end to peak end.

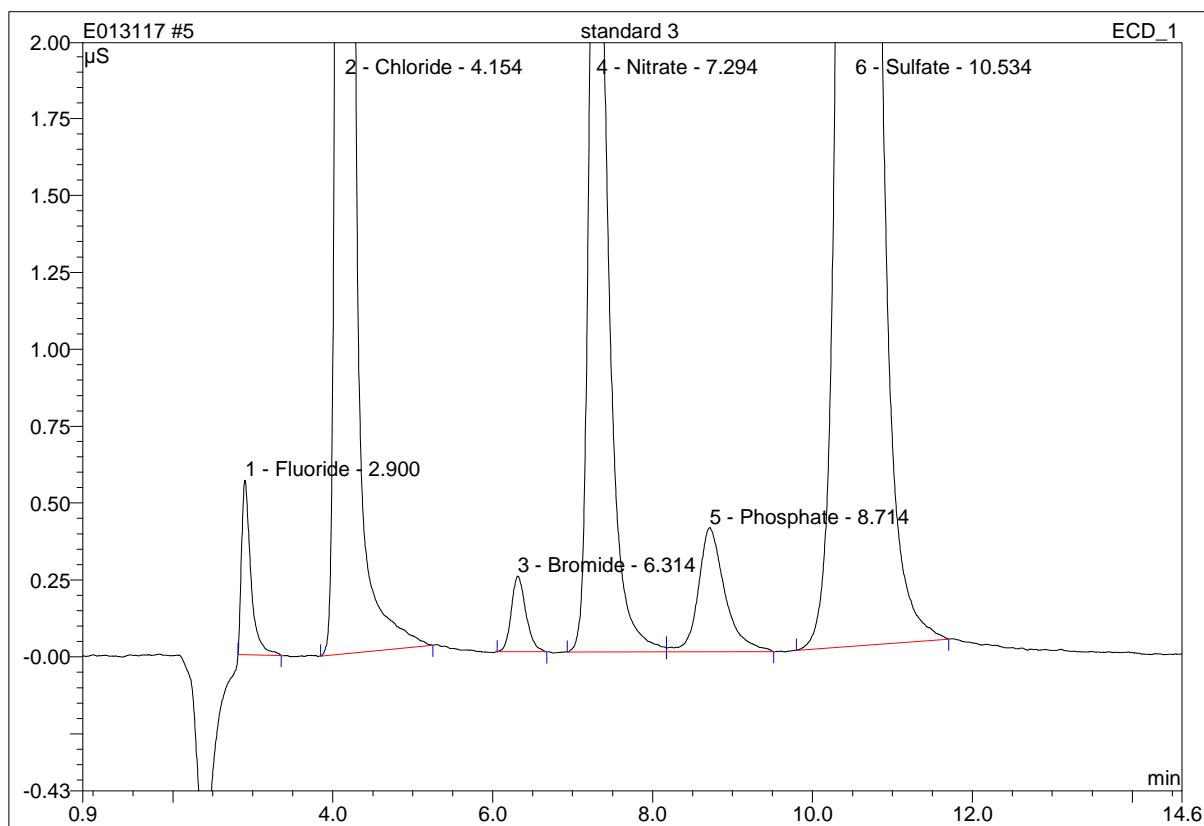
M = Main

R = Rider

BMB = This peak type is for resolved peaks.

5 standard 3

Sample Name:	standard 3	Injection Volume:	20.0
Vial Number:	18	Channel:	IC5
Sample Type:	standard	Wavelength:	n.a.
Control Program:	IC5	Bandwidth:	n.a.
Quantif. Method:	IC5 ANION	Dilution Factor:	1.0000
Recording Time:	1/31/2017 21:45	Sample Weight:	1.0000
Run Time (min):	15.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount ppm	Type
1	2.90	Fluoride	0.567	0.077	0.74	0.333	BMB
2	4.15	Chloride	26.713	3.891	37.61	18.343	BMB
3	6.31	Bromide	0.246	0.052	0.50	0.765	BMB
4	7.29	Nitrate	3.067	0.808	7.81	1.976	BM
5	8.71	Phosphate	0.403	0.156	1.50	0.862	MB
6	10.53	Sulfate	14.867	5.361	51.83	36.484	BMB
Total:			45.863	10.343	100.00	58.762	

modified on: n.a.

By: OLH/EMW/JSW

* = Manual integrations due to peak, rider or baseline error.

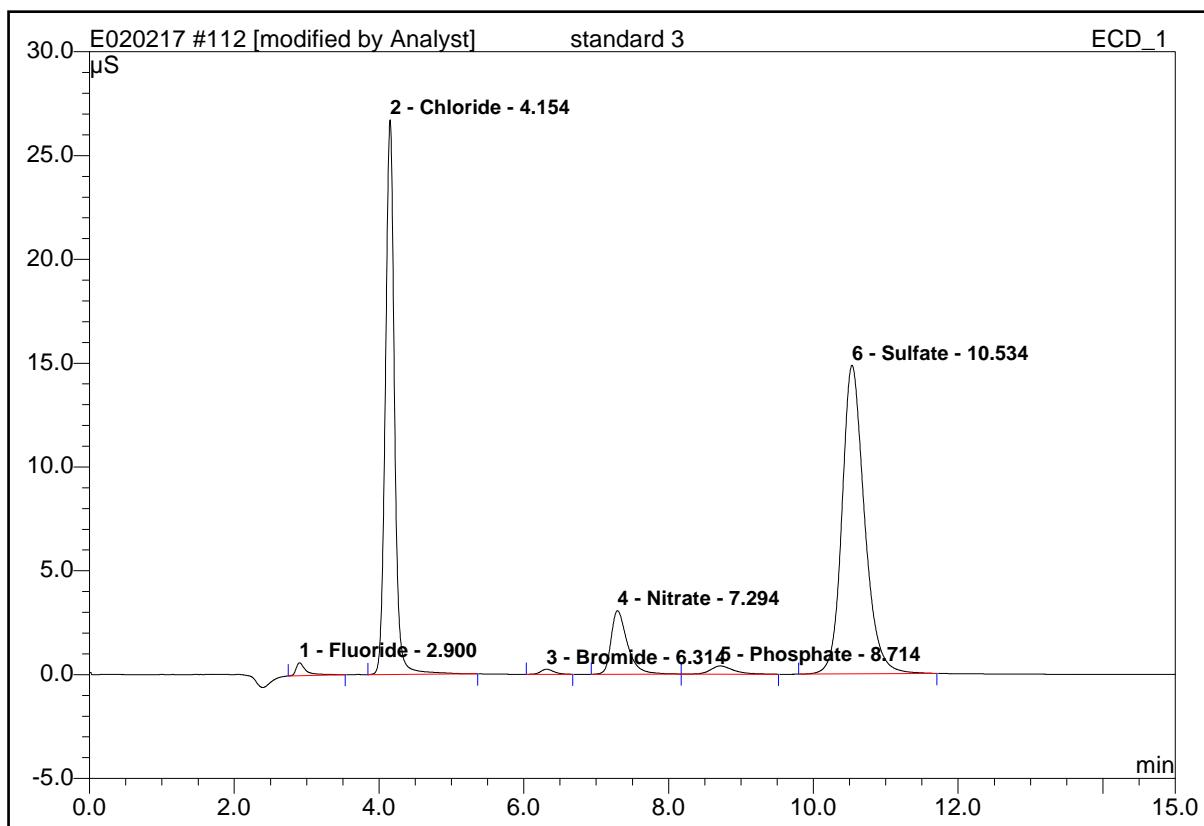
close up/Integration

Chromleon (c) Dionex 1996-2006
Version 6.80 SR15 Build 4656 (243203)

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R= Rider
BMB = This peak type is for resolved peaks.

112 standard 3

Sample Name:	standard 3	Injection Volume:	20.0
Vial Number:	18	Channel:	IC5
Sample Type:	standard	Wavelength:	n.a.
Control Program:	IC5	Bandwidth:	n.a.
Quantif. Method:	IC5 ANION	Dilution Factor:	1.0000
Recording Time:	1/31/2017 21:45	Sample Weight:	1.0000
Run Time (min):	15.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount ppm	Type
1	2.90	Fluoride	0.624	0.102	0.98	0.416	BMB*
2	4.15	Chloride	26.715	3.895	37.61	18.360	BMB*
3	6.31	Bromide	0.246	0.052	0.50	0.768	BMB*
4	7.29	Nitrate	3.063	0.800	7.72	1.961	BMB*
5	8.71	Phosphate	0.395	0.147	1.42	0.826	bMB*
6	10.53	Sulfate	14.867	5.361	51.77	36.484	BMB
Total:			45.910	10.356	100.00	58.815	

modified on: 01.31.17 22:59 By: OLH/EMW/JSW

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B = Baseline with direct contact on the left or right side of peak.

b = Baseline is below non resolved peaks drawn from peak end to peak end.

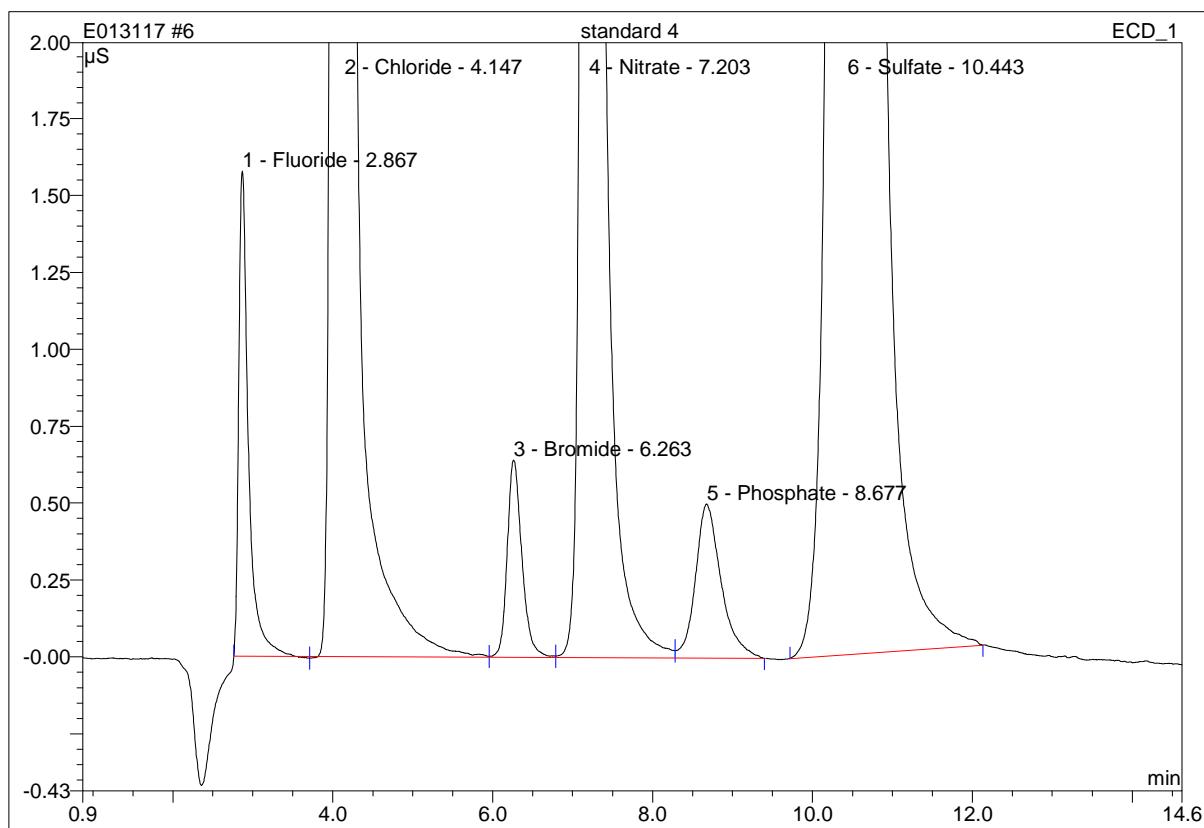
M = Main

R = Rider

BMB = This peak type is for resolved peaks.

6 standard 4

Sample Name:	standard 4	Injection Volume:	20.0
Vial Number:	18	Channel:	IC5
Sample Type:	standard	Wavelength:	n.a.
Control Program:	IC5	Bandwidth:	n.a.
Quantif. Method:	IC5 ANION	Dilution Factor:	1.0000
Recording Time:	1/31/2017 22:02	Sample Weight:	1.0000
Run Time (min):	15.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount ppm	Type
1	2.87	Fluoride	1.577	0.222	0.76	0.942	BM
2	4.15	Chloride	65.210	11.159	38.05	50.463	M
3	6.26	Bromide	0.641	0.137	0.47	2.001	M
4	7.20	Nitrate	8.248	2.139	7.29	5.001	M
5	8.68	Phosphate	0.501	0.187	0.64	1.049	MB
6	10.44	Sulfate	42.650	15.486	52.80	100.300	BMB
Total:			118.827	29.330	100.00	159.757	

modified on: n.a.

By: OLH/EMW/JSW

* = Manual integrations due to peak, rider or baseline error.

close up/Integration

Chromleon (c) Dionex 1996-2006
Version 6.80 SR15 Build 4656 (243203)

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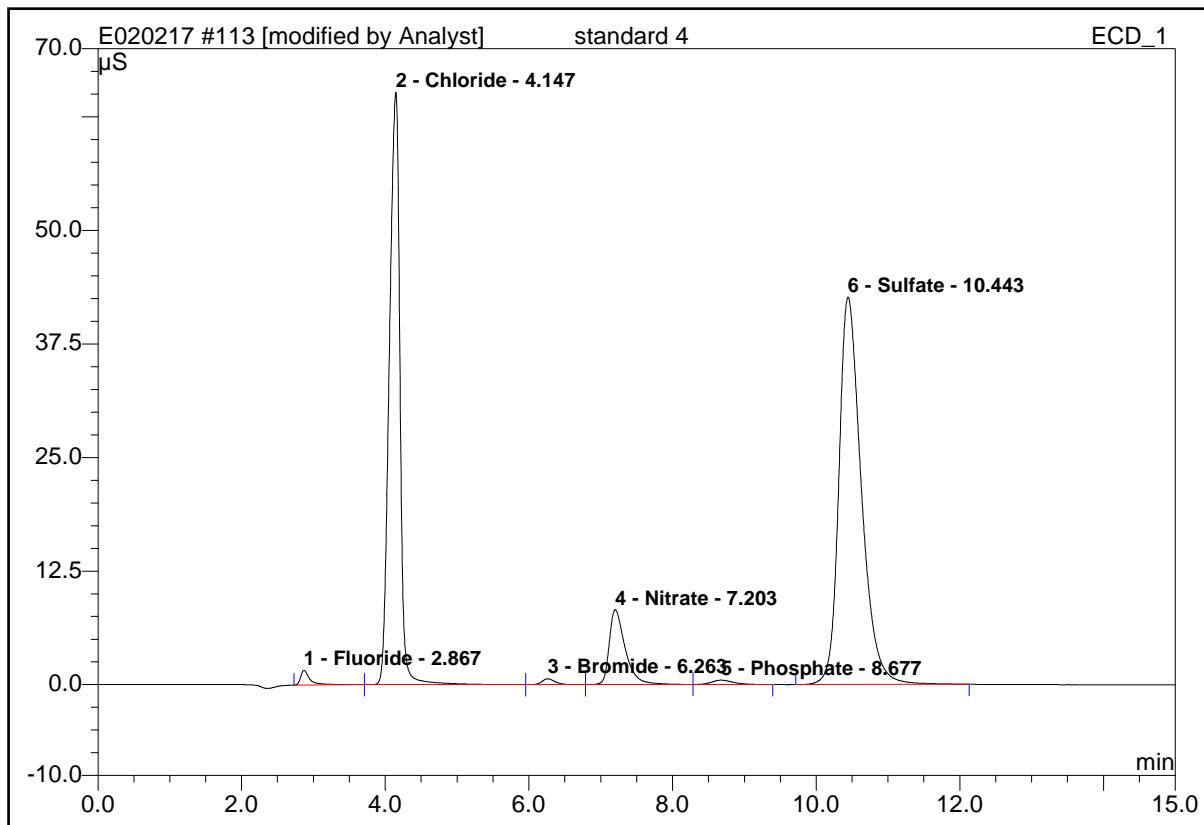
M = Main

R= Rider

BMB = This peak type is for resolved peaks.

113 standard 4

Sample Name:	standard 4	Injection Volume:	20.0
Vial Number:	18	Channel:	IC5
Sample Type:	standard	Wavelength:	n.a.
Control Program:	IC5	Bandwidth:	n.a.
Quantif. Method:	IC5 ANION	Dilution Factor:	1.0000
Recording Time:	1/31/2017 22:02	Sample Weight:	1.0000
Run Time (min):	15.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}^*\text{min}$	Rel.Area %	Amount ppm	Type
1	2.87	Fluoride	1.619	0.248	0.84	1.006	BM *
2	4.15	Chloride	65.216	11.171	38.03	50.493	M *
3	6.26	Bromide	0.644	0.139	0.47	2.025	M *
4	7.20	Nitrate	8.251	2.143	7.29	5.005	M *
5	8.68	Phosphate	0.502	0.187	0.64	1.052	MB*
6	10.44	Sulfate	42.650	15.486	52.72	100.300	BMB
Total:			118.882	29.373	100.00	159.882	

modified on: 01.31.17 22:59 By: OLH/EMW/JSW

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B = Baseline with direct contact on the left or right side of peak.

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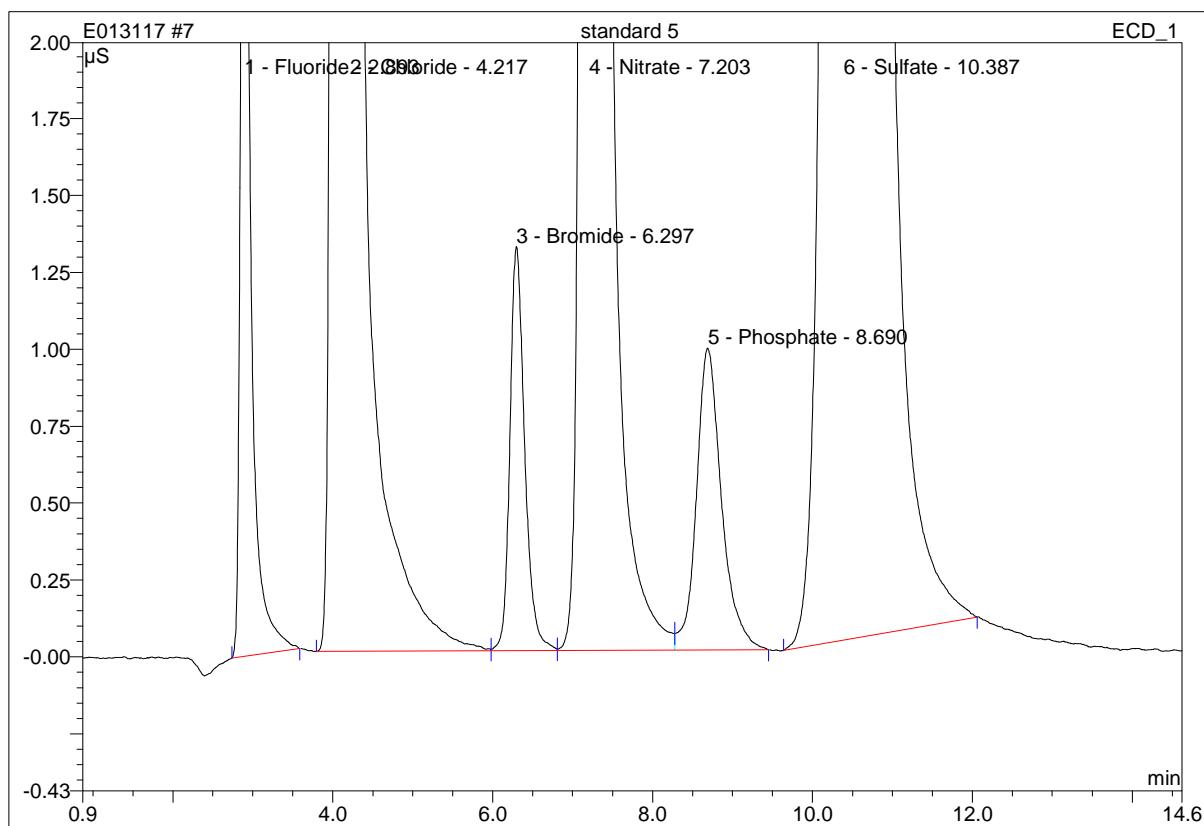
M = Main

R = Rider

BMB = This peak type is for resolved peaks.

7 standard 5

Sample Name:	standard 5	Injection Volume:	20.0
Vial Number:	18	Channel:	IC5
Sample Type:	standard	Wavelength:	n.a.
Control Program:	IC5	Bandwidth:	n.a.
Quantif. Method:	IC5 ANION	Dilution Factor:	1.0000
Recording Time:	1/31/2017 22:19	Sample Weight:	1.0000
Run Time (min):	15.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount ppm	Type
1	2.89	Fluoride	3.380	0.488	0.76	1.959	BMB
2	4.22	Chloride	109.972	24.337	37.71	103.506	BM
3	6.30	Bromide	1.313	0.282	0.44	4.051	M
4	7.20	Nitrate	18.071	4.668	7.23	10.162	M
5	8.69	Phosphate	0.981	0.357	0.55	2.012	MB
6	10.39	Sulfate	89.992	34.402	53.31	207.460	BMB
Total:			223.710	64.535	100.00	329.151	

modified on: n.a.

By: OLH/EMW/JSW

* = Manual integrations due to peak, rider or baseline error.

close up/Integration

Chromleon (c) Dionex 1996-2006
Version 6.80 SR15 Build 4656 (243203)

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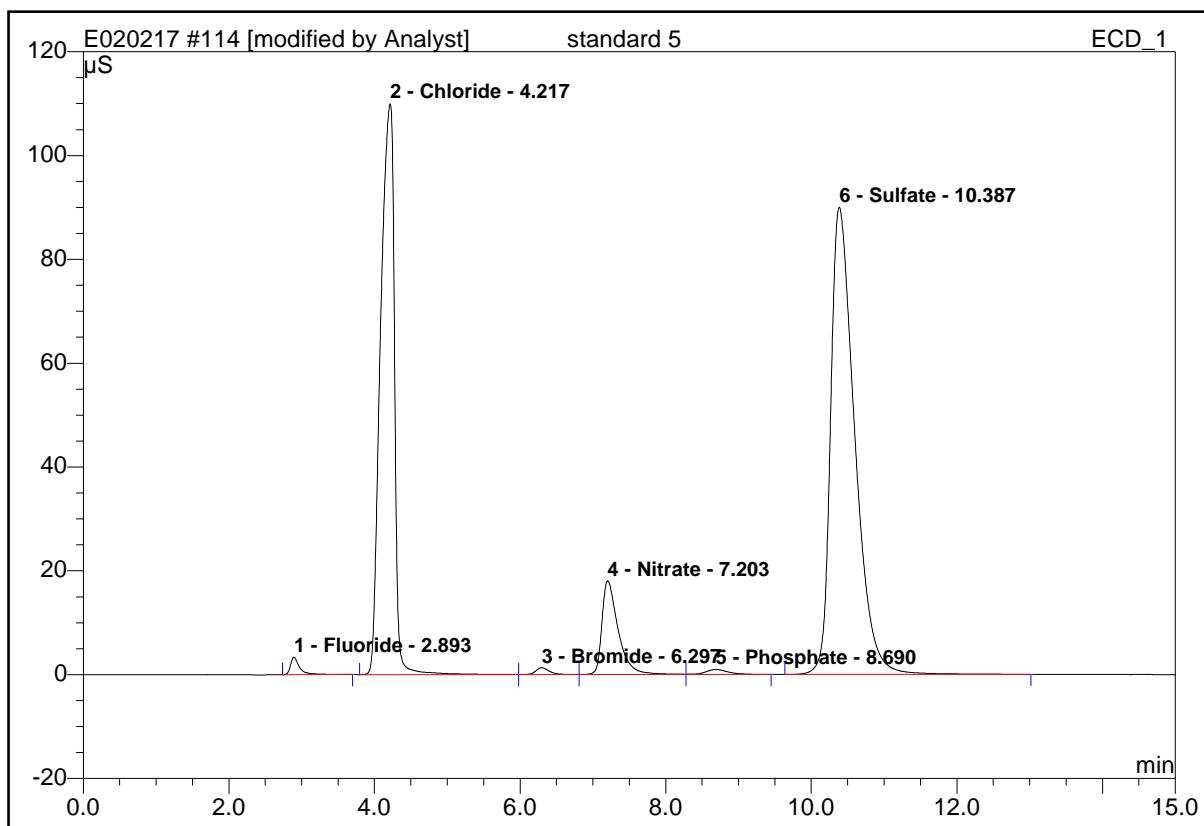
M = Main

R= Rider

BMB = This peak type is for resolved peaks.

114 standard 5

Sample Name:	standard 5	Injection Volume:	20.0
Vial Number:	18	Channel:	IC5
Sample Type:	standard	Wavelength:	n.a.
Control Program:	IC5	Bandwidth:	n.a.
Quantif. Method:	IC5 ANION	Dilution Factor:	1.0000
Recording Time:	1/31/2017 22:19	Sample Weight:	1.0000
Run Time (min):	15.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppm	Type
1	2.89	Fluoride	3.382	0.492	0.76	1.971	BMB*
2	4.22	Chloride	109.972	24.337	37.63	103.506	BM
3	6.30	Bromide	1.313	0.282	0.44	4.051	M
4	7.20	Nitrate	18.071	4.668	7.22	10.162	M
5	8.69	Phosphate	0.981	0.357	0.55	2.012	MB
6	10.39	Sulfate	90.019	34.543	53.41	207.923	BMB*
Total:			223.739	64.680	100.00	329.625	

modified on: 01.31.17 22:59 By: OLH/EMW/JSW

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B = Baseline with direct contact on the left or right side of peak.

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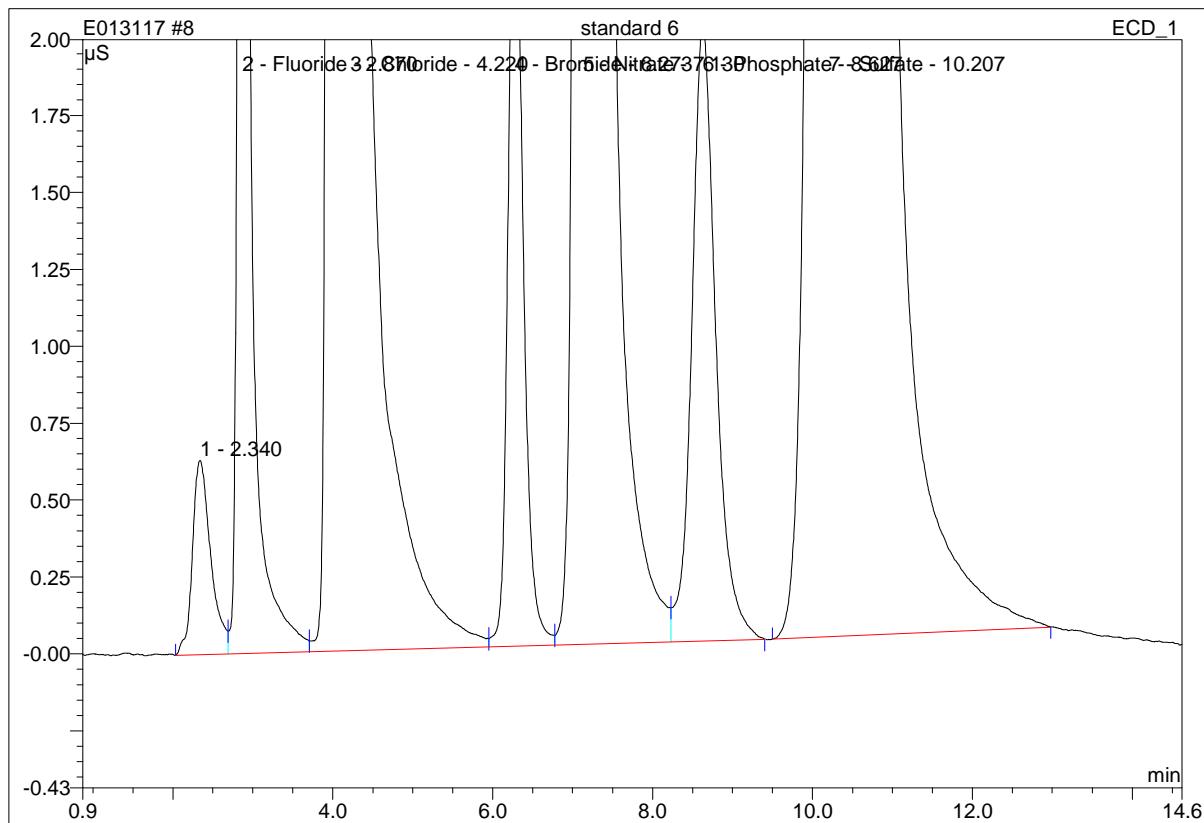
M = Main

R = Rider

BMB = This peak type is for resolved peaks.

8 standard 6

Sample Name:	standard 6	Injection Volume:	20.0
Vial Number:	19	Channel:	IC5
Sample Type:	standard	Wavelength:	n.a.
Control Program:	IC5	Bandwidth:	n.a.
Quantif. Method:	IC5 ANION	Dilution Factor:	1.0000
Recording Time:	1/31/2017 22:37	Sample Weight:	1.0000
Run Time (min):	15.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppm	Type
1	2.34	n.a.	0.631	0.169	0.12	n.a.	BM
2	2.87	Fluoride	7.113	1.073	0.77	4.016	M
3	4.22	Chloride	167.798	51.647	37.27	198.586	M
4	6.27	Bromide	2.730	0.583	0.42	7.986	M
5	7.13	Nitrate	39.432	10.345	7.47	19.939	M
6	8.63	Phosphate	1.999	0.699	0.50	3.983	MB
7	10.21	Sulfate	173.785	74.044	53.44	396.973	BMB
Total:			393.488	138.558	100.00	631.482	

modified on: n.a.

By: OLH/EMW/JSW

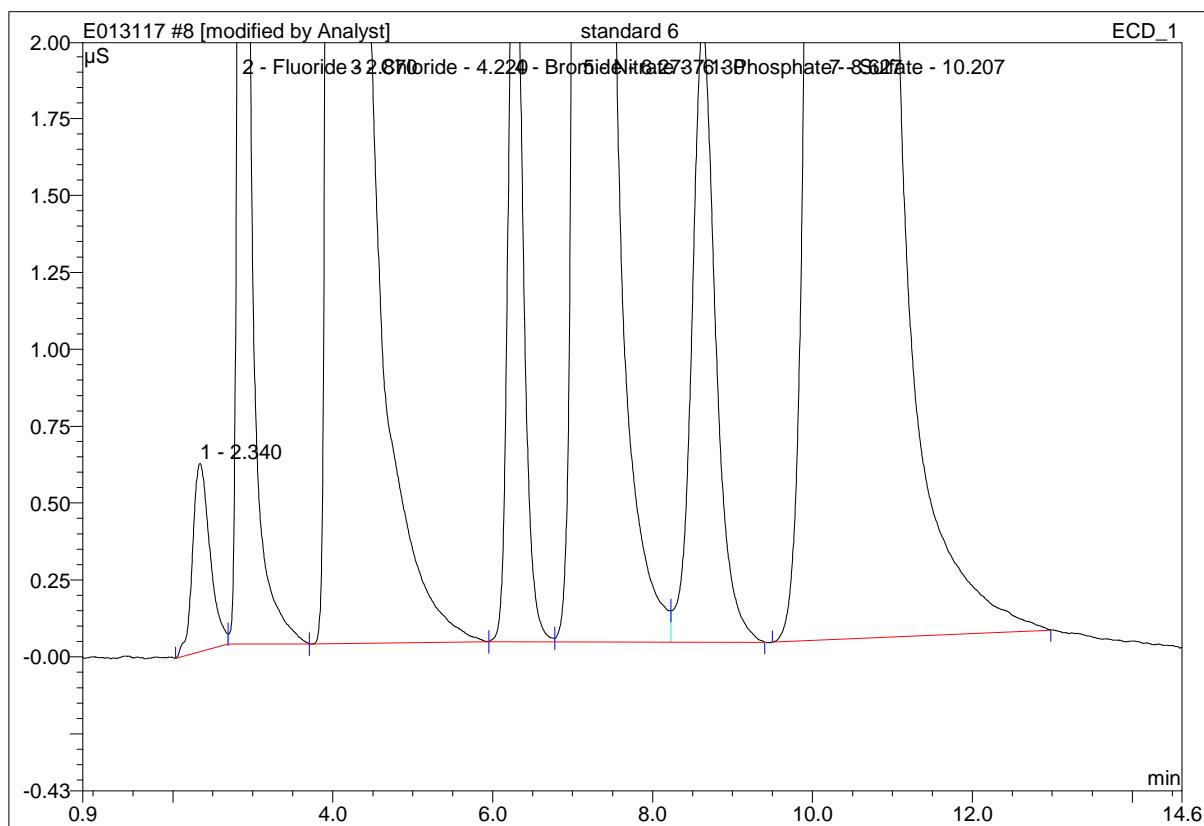
close up/Integration

Chromleon (c) Dionex 1996-2006
Version 6.80 SR15 Build 4656 (243203)

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M = Main
R= Rider
BMB = This peak type is for resolved peaks.

8 standard 6

Sample Name:	standard 6	Injection Volume:	20.0
Vial Number:	19	Channel:	IC5
Sample Type:	standard	Wavelength:	n.a.
Control Program:	IC5	Bandwidth:	n.a.
Quantif. Method:	IC5 ANION	Dilution Factor:	1.0000
Recording Time:	1/31/2017 22:37	Sample Weight:	1.0000
Run Time (min):	15.00	Sample Amount:	1.0000



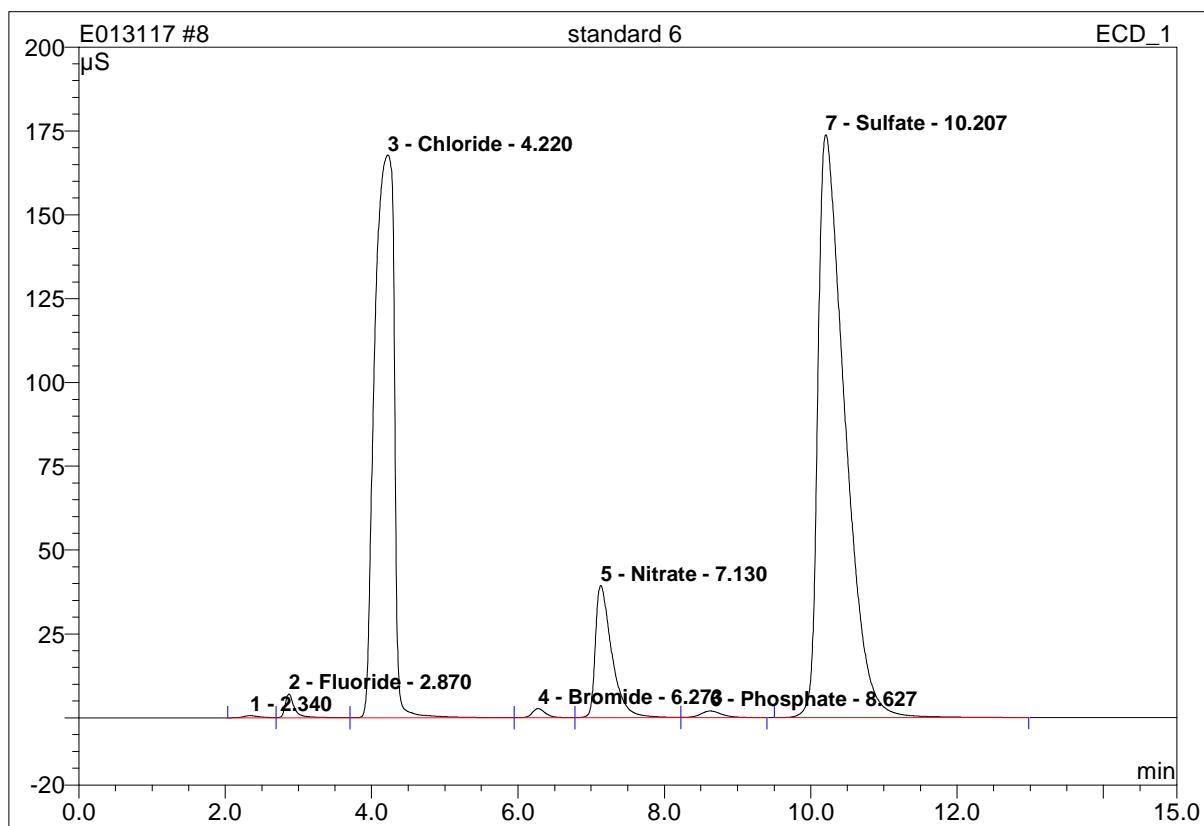
No.	Ret.Time min	Peak Name	Height µS	Area µS*min	Rel.Area %	Amount ppm	Type
1	2.34	n.a.	0.612	0.155	0.11	n.a.	BM *
2	2.87	Fluoride	7.072	1.034	0.75	4.011	Mb*
3	4.22	Chloride	167.765	51.578	37.27	198.571	bMb*
4	6.27	Bromide	2.706	0.564	0.41	7.972	bM *
5	7.13	Nitrate	39.415	10.323	7.46	19.937	M *
6	8.63	Phosphate	1.993	0.693	0.50	3.982	MB*
7	10.21	Sulfate	173.785	74.044	53.50	396.973	BMB
Total:			393.347	138.390	100.00	631.446	

modified on: 01.31.17 22:59 By: OLH/EMW/JSW

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B = Baseline with direct contact on the left or right side of peak.
b = Baseline is below non resolved peaks drawn from peak end to peak end.
M = Main
R= Rider
BMB = This peak type is for resolved peaks.

8 standard 6

Sample Name:	standard 6	Injection Volume:	20.0
Vial Number:	19	Channel:	IC5
Sample Type:	standard	Wavelength:	n.a.
Control Program:	IC5	Bandwidth:	n.a.
Quantif. Method:	IC5 ANION	Dilution Factor:	1.0000
Recording Time:	1/31/2017 22:37	Sample Weight:	1.0000
Run Time (min):	15.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area μS*min	Rel.Area %	Amount ppm	Type
1	2.34	n.a.	0.631	0.169	0.12	n.a.	BM
2	2.87	Fluoride	7.113	1.073	0.77	3.979	M
3	4.22	Chloride	167.798	51.647	37.27	198.557	M
4	6.27	Bromide	2.730	0.583	0.42	7.980	M
5	7.13	Nitrate	39.432	10.345	7.47	19.942	M
6	8.63	Phosphate	1.999	0.699	0.50	3.987	MB
7	10.21	Sulfate	173.785	74.044	53.44	397.124	BMB
Total:			393.488	138.558	100.00	631.569	

modified on: n.a.

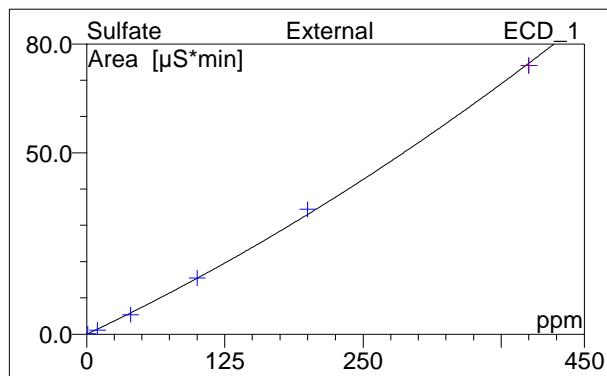
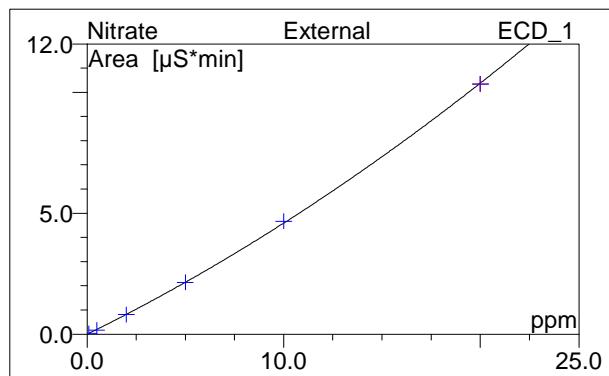
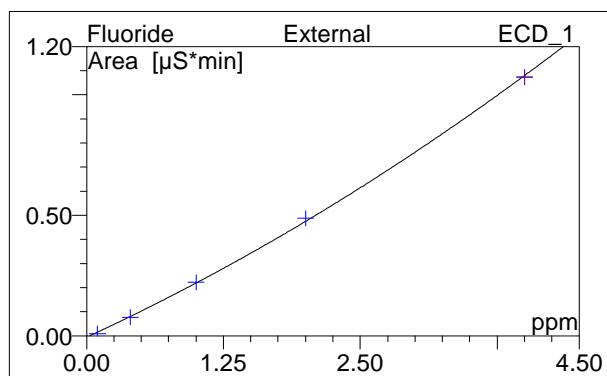
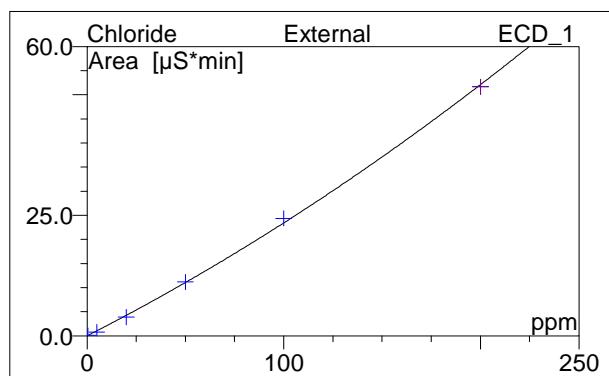
By: OLH/EMW/JSW

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8 standard 6

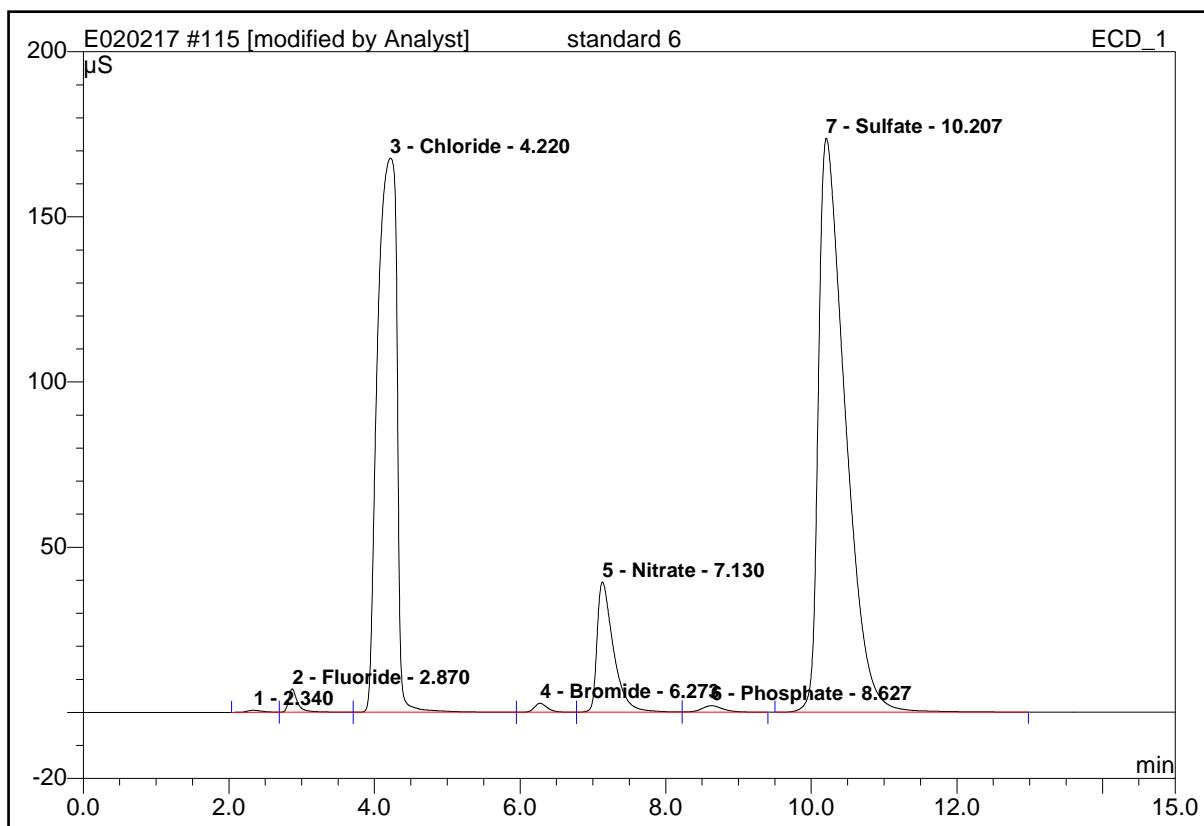
Sample Name:	standard 6	Injection Volume:	20.0
Vial Number:	19	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	IC5	Bandwidth:	n.a.
Quantif. Method:	IC5 ANION	Dilution Factor:	1.0000
Recording Time:	1/31/2017 22:37	Sample Weight:	1.0000
Run Time (min):	15.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Cal.Type	Points	Coeff.Det. %	Offset %	Slope	Curve
1	2.34	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	2.87	Fluoride	XA0QOff	5	99.8046	-0.0060	0.2091	0.0156
3	4.22	Chloride	XA0QOff	6	99.8677	-0.0237	0.2081	0.0003
4	6.27	Bromide	XA0QOff	6	99.9699	-0.0010	0.0667	0.0008
5	7.13	Nitrate	XA0QOff	6	99.9667	-0.0072	0.4000	0.0060
6	8.63	Phosphate	XA0QOff	6	99.5449	-0.0061	0.1883	-0.0029
7	10.21	Sulfate	XA0QOff	6	99.8744	-0.0358	0.1435	0.0001
Average:					99.8380	-0.0133	0.2026	0.0033

115 standard 6

Sample Name:	standard 6	Injection Volume:	20.0
Vial Number:	19	Channel:	IC5
Sample Type:	standard	Wavelength:	n.a.
Control Program:	IC5	Bandwidth:	n.a.
Quantif. Method:	IC5 ANION	Dilution Factor:	1.0000
Recording Time:	1/31/2017 22:37	Sample Weight:	1.0000
Run Time (min):	15.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Height μS	Area $\mu\text{S}^*\text{min}$	Rel.Area %	Amount ppm	Type
1	2.34	n.a.	0.612	0.155	0.11	n.a.	BM *
2	2.87	Fluoride	7.072	1.034	0.75	4.011	Mb*
3	4.22	Chloride	167.765	51.578	37.27	198.571	bMb*
4	6.27	Bromide	2.706	0.564	0.41	7.972	bM *
5	7.13	Nitrate	39.415	10.323	7.46	19.937	M *
6	8.63	Phosphate	1.993	0.693	0.50	3.982	MB*
7	10.21	Sulfate	173.785	74.044	53.50	396.973	BMB
Total:			393.347	138.390	100.00	631.446	

modified on: 01.31.17 22:59 By: OLH/EMW/JSW

* = Manual integrations due to peak, rider, or baseline errors.

B = Baseline with direct contact on the left or right side of peak.

b = Baseline is below non resolved peaks drawn from peak end to peak end.

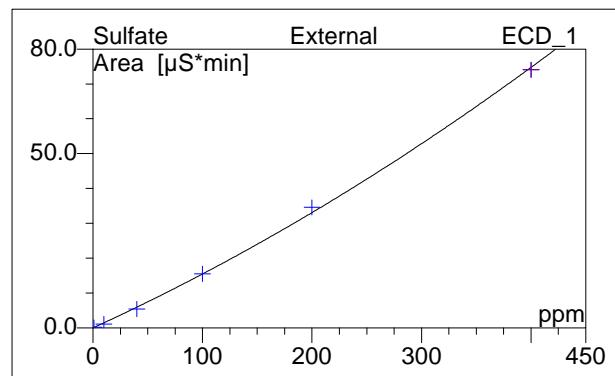
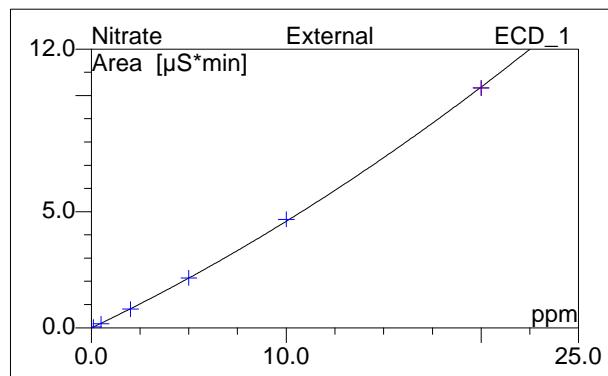
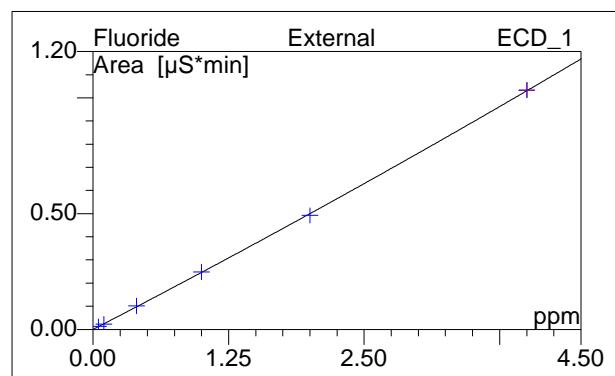
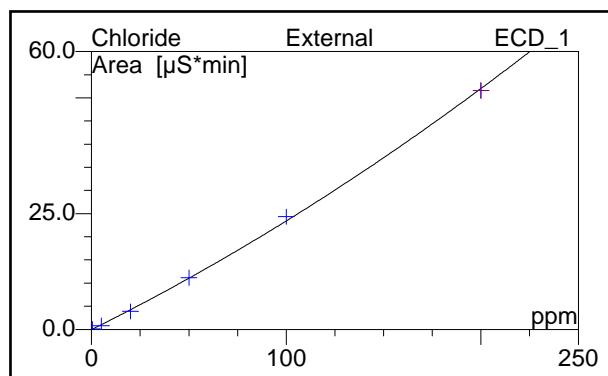
M = Main

R = Rider

BMB = This peak type is for resolved peaks.

115 standard 6

Sample Name:	standard 6	Injection Volume:	20.0
Vial Number:	19	Channel:	ECD_1
Sample Type:	standard	Wavelength:	n.a.
Control Program:	IC5	Bandwidth:	n.a.
Quantif. Method:	IC5 ANION	Dilution Factor:	1.0000
Recording Time:	1/31/2017 22:37	Sample Weight:	1.0000
Run Time (min):	15.00	Sample Amount:	1.0000



No.	Ret.Time min	Peak Name	Cal.Type	Points	Coeff.Det. %	Offset %	Slope	Curve
1	2.34	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2	2.87	Fluoride	XA0QOff	6	99.9748	0.0002	0.2422	0.0038
3	4.22	Chloride	XA0QOff	6	99.8743	-0.0224	0.2087	0.0003
4	6.27	Bromide	XA0QOff	6	99.9649	-0.0007	0.0686	0.0003
5	7.13	Nitrate	XA0QOff	6	99.9647	-0.0069	0.3997	0.0059
6	8.63	Phosphate	XA0QOff	6	99.7015	-0.0039	0.1840	-0.0022
7	10.21	Sulfate	XA0QOff	6	99.8655	-0.0342	0.1440	0.0001
Average:					99.8909	-0.0113	0.2079	0.0014



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AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

BC Laboratories
4100 Atlas Court
Bakersfield, CA 93308
Phone: 661-327-4911

SDG: 17-02918
Class: WET
Method: EPA-310.1



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ANALYSES DATA PACKAGE COVER PAGE**EPA-310.1**

Laboratory: BC Laboratories

SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN

Project: Alameda

Client Sample Id:P4-1-MWIB2_170201**Lab Sample Id:**1702918-10RE1

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature:

Sara Guron

Name:

Sara Guron

Date:

03-06-2017

Title:

QA/QC Manager



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

METHOD DETECTION AND REPORTING LIMITS**EPA-310.1****Laboratory:** BC Laboratories**SDG:** 17-02918**Client:** AMEC Environmental & Infrastructure \$AMCN**Project:** Alameda**Matrix:** Water**Instrument:** MET-1

Analyte	DL	LOD	LOQ	Units
Total Alkalinity as CaCO ₃	4.1	4.1	4.1	mg/L



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Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

**INORGANIC ANALYSIS DATA SHEET
EPA-310.1****P4-1-MWIB2_170201**

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Matrix: Water Laboratory ID: 1702918-10RE1 File ID: Tiamo020617-023
Sampled: 02/01/17 09:10 Prepared: 02/06/17 09:00 Analyzed: 02/06/17 13:06
Solids: 0.00 Preparation: No Prep Initial/Final: 50 ml / 50 ml
Batch: B[B0489 Sequence: 1702126 Calibration: UNASSIGNED Instrument: MET-1

CAS NO.	Analyte	Concentration (mg/L)	DL	LOD	LOQ	Dilution Factor	Q	Method
---	Total Alkalinity as CaCO ₃	710	8.2	8.2	8.2	2	D	EPA-310.1



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Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

PREPARATION BATCH SUMMARY**EPA-310.1**

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Batch: B[B0489 Batch Matrix: Water Preparation: No Prep

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
P4-1-MWIB2_170201	1702918-10RE1	Tiamo020617-023	02/06/17 09:00	Added for BatchQC in: B[B0489
Blank	B[B0489-BLK1	Tiamo020617-007	02/06/17 09:00	
LCS	B[B0489-BS3	Tiamo020617-006	02/06/17 09:00	
P4-1-MWIB2_170201	B[B0489-DUP1	Tiamo020617-024	02/06/17 09:00	



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Reported: 3/6/2017 4:27:47PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

**METHOD BLANK DATA SHEET
EPA-310.1**

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Matrix: Water Laboratory ID: B[B0489-BLK1 File ID: Tiamo020617-007
Prepared: 02/06/17 09:00 Preparation: No Prep Initial/Final: 50 ml / 50 ml
Analyzed: 02/06/17 09:35 Instrument: MET-1
Batch: B[B0489 Sequence: 1702126 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
---	Total Alkalinity as CaCO3	4.1	4.1	4.1	4.1	U



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Reported: 3/6/2017 4:27:47PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

DUPLICATES**EPA-310.1****P4-1-MWIB2 170201**Laboratory: BC LaboratoriesSDG: 17-02918Client: AMEC Environmental & Infrastructure \$AMCNProject: AlamedaMatrix: WaterLaboratory ID: B[B0489-DUP1Batch: B[B0489Lab Source ID: 1702918-10RE1Preparation: No PrepInitial/Final: 50 ml / 50 mlSource Sample Name: P4-1-MWIB2_170201

% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (mg/L)	C	DUPLICATE CONCENTRATION (mg/L)	C	RPD %	Q	METHOD
Total Alkalinity as CaCO3	10	710.46		630.13		12.0	*	EPA-310.1

* Values outside of QC limits



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Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

LCS RECOVERY**EPA-310.1**

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Matrix: Water
Batch: B[B0489 Laboratory ID: B[B0489-BS3
Preparation: No Prep Initial/Final: 50 ml / 50 ml

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC. #	QC LIMITS REC.
Total Alkalinity as CaCO3	100.00	99.340	99.3	90 - 110

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits



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Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ANALYSIS BATCH (SEQUENCE) SUMMARY EPA-310.1

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Sequence: 1702126 Instrument: MET-1
Matrix: Water Calibration: UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
LCS	B[B0489-BS3	Tiamo020617-006	02/06/17 09:29
Blank	B[B0489-BLK1	Tiamo020617-007	02/06/17 09:35
P4-1-MWIB2_170201	1702918-10RE1	Tiamo020617-023	02/06/17 13:06
P4-1-MWIB2_170201	B[B0489-DUP1	Tiamo020617-024	02/06/17 13:12



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Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

HOLDING TIME SUMMARY**EPA-310.1**

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
P4-1-MWIB2_170201	02/01/17 09:10	02/01/17 22:30	02/06/17 09:00	5.00	14.00	02/06/17 13:06	5.00	14.00	

* Holding time not met

Note: If Prep or Analysis are performed within the hour (if holding time is based on hours) or within the day (if holding time is based on days), then the sample is not flagged as outside holding times. Calculated number of days are based on date received or date prepared depending on the test.



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Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

BC Laboratories
4100 Atlas Court
Bakersfield, CA 93308
Phone: 661-327-4911

SDG: 17-02918
Class: WET
Method: EPA-353.2



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San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ANALYSES DATA PACKAGE COVER PAGE**EPA-353.2**

Laboratory: BC Laboratories

SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN

Project: Alameda

Client Sample Id:P4-1-MWIB2_170201**Lab Sample Id:**1702918-10

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature:

Sara Guron

Name:

Sara Guron

Date:

03-06-2017

Title:

QA/QC Manager



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

METHOD DETECTION AND REPORTING LIMITS**EPA-353.2****Laboratory:** BC Laboratories**SDG:** 17-02918**Client:** AMEC Environmental & Infrastructure \$AMCN**Project:** Alameda**Matrix:** Water**Instrument:** KONE-1

Analyte	DL	LOD	LOQ	Units
Nitrite as N	0.01	0.03	0.05	mg/L
Nitrite as NO2	0.04	0.1	0.17	mg/L



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Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

**INORGANIC ANALYSIS DATA SHEET
EPA-353.2****P4-1-MWIB2_170201**Laboratory: BC LaboratoriesSDG: 17-02918Client: AMEC Environmental & Infrastructure \$AMCNProject: AlamedaMatrix: WaterLaboratory ID: 1702918-10File ID: 170202 1645 NO2-009Sampled: 02/01/17 09:10Prepared: 02/02/17 16:45Analyzed: 02/02/17 16:45Solids: 0.00Preparation: No PrepInitial/Final: 20 ml / 20 mlBatch: B[B0480Sequence: 1702286Calibration: UNASSIGNEDInstrument: KONE-1

CAS NO.	Analyte	Concentration (mg/L)	DL	LOD	LOQ	Dilution Factor	Q	Method
14797-65-0	Nitrite as N	0.062	0.010	0.030	0.050	1		EPA-353.2



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Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

PREPARATION BATCH SUMMARY**EPA-353.2**

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Batch: B[B0480 Batch Matrix: Water Preparation: No Prep

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
P4-1-MWIB2_170201	1702918-10	170202 1645 NO2-009	02/02/17 16:45	
Blank	B[B0480-BLK1	170202 1645 NO2-004	02/02/17 16:45	
LCS	B[B0480-BS1	170202 1645 NO2-003	02/02/17 16:45	
Duplicate	B[B0480-DUP1	170202 1645 NO2-006	02/02/17 16:45	
Matrix Spike	B[B0480-MS1	170202 1645 NO2-007	02/02/17 16:45	
Matrix Spike Dup	B[B0480-MSD1	170202 1645 NO2-008	02/02/17 16:45	



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Reported: 3/6/2017 4:27:47PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

**METHOD BLANK DATA SHEET
EPA-353.2**

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Matrix: Water Laboratory ID: B[B0480-BLK1 File ID: 170202 1645 NO2-004
Prepared: 02/02/17 16:45 Preparation: No Prep Initial/Final: 20 ml / 20 ml
Analyzed: 02/02/17 16:45 Instrument: KONE-1
Batch: B[B0480 Sequence: 1702286 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
14797-65-0	Nitrite as N	0.030	0.010	0.030	0.050	U



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Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

DUPLICATES

EPA-353.2

[Duplicate](#)

Laboratory: BC Laboratories

SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN

Project: Alameda

Matrix: Water

Laboratory ID: B[B0480-DUP1

Batch: B[B0480

Lab Source ID: 1702917-10

Preparation: No Prep

Initial/Final: 20 ml / 20 ml

Source Sample Name: Duplicate

% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (mg/L)	C	DUPLICATE CONCENTRATION (mg/L)	C	RPD %	Q	METHOD
Nitrite as N	10	ND		ND				EPA-353.2
Nitrite as NO2	10	ND		ND				EPA-353.2

* Values outside of QC limits



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Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

EPA-353.2

Matrix Spike

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Matrix: Water

Batch: B[B0480 Laboratory ID: B[B0480-MS1

Preparation: No Prep Initial/Final: 19 ml / 20 ml

Source Sample Number: 1702917-10

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC. #	QC LIMITS REC.
Nitrite as N	0.52632	ND	0.51616	98.1	90 - 110
Nitrite as NO2	1.7289	ND	1.6953	98.1	90 - 110

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC. #	% RPD #	QC LIMITS RPD	REC.
Nitrite as N	0.52632	0.51825	98.5	0.405	10	90 - 110
Nitrite as NO2	1.7289	1.7022	98.5	0.405	10	90 - 110

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits



AMEC Environmental & Infrastructure
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Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

LCS RECOVERY**EPA-353.2**

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Matrix: Water
Batch: B[B0480 Laboratory ID: B[B0480-BS1
Preparation: No Prep Initial/Final: 20 ml / 20 ml

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC. #	QC LIMITS REC.
Nitrite as N	0.50000	0.49303	98.6	90 - 110
Nitrite as NO2	1.6425	1.6194	98.6	90 - 110

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits



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Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ANALYSIS BATCH (SEQUENCE) SUMMARY EPA-353.2

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Sequence: 1702286 Instrument: KONE-1
Matrix: Water Calibration: UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	1702286-CCV1	170202 1645 NO2-001	02/02/17 16:45
Calibration Blank	1702286-CCB1	170202 1645 NO2-002	02/02/17 16:45
LCS	B[B0480-BS1	170202 1645 NO2-003	02/02/17 16:45
Blank	B[B0480-BLK1	170202 1645 NO2-004	02/02/17 16:45
Duplicate	B[B0480-DUP1	170202 1645 NO2-006	02/02/17 16:45
Matrix Spike	B[B0480-MS1	170202 1645 NO2-007	02/02/17 16:45
Matrix Spike Dup	B[B0480-MSD1	170202 1645 NO2-008	02/02/17 16:45
P4-1-MWIB2_170201	1702918-10	170202 1645 NO2-009	02/02/17 16:45
Calibration Check	1702286-CCV2	170202 1645 NO2-010	02/02/17 16:46
Calibration Blank	1702286-CCB2	170202 1645 NO2-011	02/02/17 16:46
Calibration Check	1702286-CCV3	170202 1645 NO2-012	02/02/17 17:01
Calibration Blank	1702286-CCB3	170202 1645 NO2-013	02/02/17 17:01
Calibration Check	1702286-CCV4	170202 1645 NO2-016	02/02/17 17:03
Calibration Blank	1702286-CCB4	170202 1645 NO2-017	02/02/17 17:03



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Reported: 3/6/2017 4:27:47PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

BLANKS
EPA-353.2Laboratory: BC LaboratoriesSDG: 17-02918Client: AMEC Environmental & Infrastructure \$AMCNInstrument ID: KONE-1 Project: AlamedaSequence: 1702286 Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	DL	LOD	LOQ	Units	C	Method
1702286-CCB1	Nitrite as N	0.0062060	0.010		0.050	mg/L	U	EPA-353.2
	Nitrite as NO2	0.020384	0.040		0.17	mg/L	U	EPA-353.2
1702286-CCB2	Nitrite as N	0.0062400	0.010		0.050	mg/L	U	EPA-353.2
	Nitrite as NO2	0.020495	0.040		0.17	mg/L	U	EPA-353.2
1702286-CCB3	Nitrite as N	0.0069050	0.010		0.050	mg/L	U	EPA-353.2
	Nitrite as NO2	0.022679	0.040		0.17	mg/L	U	EPA-353.2
1702286-CCB4	Nitrite as N	0.0065760	0.010		0.050	mg/L	U	EPA-353.2
	Nitrite as NO2	0.021599	0.040		0.17	mg/L	U	EPA-353.2



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9210 Sky Park Court #200
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Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INITIAL AND CONTINUING CALIBRATION CHECK**EPA-353.2**Laboratory: BC LaboratoriesSDG: 17-02918Client: AMEC Environmental & Infrastructure \$AMCNProject: AlamedaInstrument ID: KONE-1Calibration: UNASSIGNEDControl Limt: +/- 10.00%Sequence: 1702286

Lab Sample ID	Analyte	True	Found	%R	Units	Method
1702286-CCV1	Nitrite as N	0.50000	0.50106	100	mg/L	EPA-353.2
	Nitrite as NO2	1.6425	1.6457	100	mg/L	EPA-353.2
1702286-CCV2	Nitrite as N	0.50000	0.49890	99.8	mg/L	EPA-353.2
	Nitrite as NO2	1.6425	1.6386	99.8	mg/L	EPA-353.2
1702286-CCV3	Nitrite as N	0.50000	0.50049	100	mg/L	EPA-353.2
	Nitrite as NO2	1.6425	1.6439	100	mg/L	EPA-353.2
1702286-CCV4	Nitrite as N	0.50000	0.49927	99.9	mg/L	EPA-353.2
	Nitrite as NO2	1.6425	1.6399	99.8	mg/L	EPA-353.2

* Values outside of QC limits



AMEC Environmental & Infrastructure
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San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

HOLDING TIME SUMMARY**EPA-353.2**

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
P4-1-MWIB2_170201	02/01/17 09:10	02/01/17 22:30	02/02/17 16:45	1.32	2.00	02/02/17 16:45	1.32	2.00	

* Holding time not met

Note: If Prep or Analysis are performed within the hour (if holding time is based on hours) or within the day (if holding time is based on days), then the sample is not flagged as outside holding times. Calculated number of days are based on date received or date prepared depending on the test.



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Raw Data From Instrument KONE-1



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Raw Data - Calibration Summary

Laboratory
Analyzer User

01.02.2017 09:00

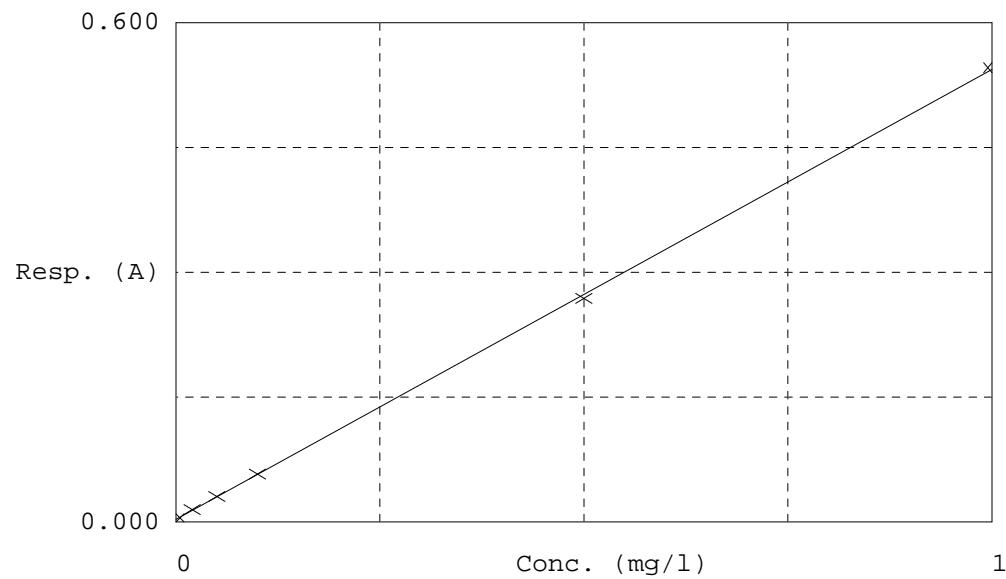
Test NO2

Accepted 01.02.2017 08:54

Factor 1.84952
Bias 0.00325

Coeff. of det. 0.999876

Errors



	Calibrator	Response	Calc. con.	Conc.	Errors
1	NO2-0	0.00393	0.00126	0.00000	
2	NO2-0.02	0.01508	0.02188	0.02000	
3	NO2-0.05	0.03072	0.05081	0.05000	
4	NO2-0.10	0.05760	0.10052	0.10000	
5	NO2-0.50	0.26889	0.49131	0.50000	
6	NO2-1.00	0.54620	1.00421	1.00000	
7	ICB-NO2(control)	0.00553	0.00422	0.00000	
8	ICV-NO2(control)	0.26982	0.49303	0.50000	

NO2 Laboratory
 Analyzer User

Date : 01.02.2017
Time : 09:00

Last change date 04.02.2016 12:17

Tick length (sec) 7.0

Full name	Nitrite as N	Test In Use	YES
Online Name		LOW	HIGH
Test type	Photometric	Test limit	* 5.00000 mg/l
Result unit	mg/l	Initial absorbance	-0.050 * A
Number of Decim.	5	Dilution limit	* 1.000000 mg/l
		Secondary dil 1+	0.0 4.0
		Critical limit	* * mg/l
		Reflex test limit	* * mg/l
		Reflex test	

Acceptance	Manual	Reference class	LOW	HIGH	In Use
Dilution 1+	0.0				

Sample type	Water	Correction factor	1.00		
	Raw water	Correction bias	0.00	mg/l	
	Sewage				

Calibration type	Linear				
Curve direction	Ascending				
Repeat time (d)	0	Abs error (mA)		*	
Points/cal.	Single	Rel error (%)		*	
Acceptance	Manual				
Response limit (mA)	MIN	MAX			
	*	*			

Bias correction in use NO

Cd reduction NO

Type of Calibrators	Separate				
Calibrator	Conc.	Dil. ratio			
NO2-0	0.000	1+0.0			
NO2-0.02	0.020	1+0.0			
NO2-0.05	0.050	1+0.0			
NO2-0.10	0.100	1+0.0			
NO2-0.50	0.500	1+0.0			
NO2-1.00	1.000	1+0.0			

Manual QC in Use	YES	Routine QC in Use	YES		
Acceptance	Manual	Interval Requests	10		
		Additional condition	NO		

Control	Mean	SD	Control	Mean	SD
ICB-NO2	0.00	0.01	CCB-NO2	0.00	0.01
ICV-NO2	0.50	0.05	CCV-NO2	0.50	0.05

Rules in Use 1:1.0*SD Rules in Use 1:1.0*SD

Blank	YES	Normal cuvette			
-------	-----	----------------	--	--	--

Sample		Volume (ul)	32		
Disp. with	Extra	Add. Volume (ul)	30		
Dilution with	Water	Wash reagent	None		

=====
Test definition Aquakem 7.2A01 Page: 2

NO₂ Laboratory Analyzer User

Date : 01.02.2017
Time : 09:00

Reagent	NO2 Buffer	Volume (ul)	120
Disp. with	Extra	Add. Volume (ul)	30
Wash reagent	None		
Syringe speed	Normal		
Measurement	End point	Blank	
Resp. Min(A)	*	Resp. Max(A)	*
Reagent	NO2 color	Volume (ul)	32
Disp. with	Extra	Add. Volume (ul)	30
Wash reagent	None		
Syringe speed	Normal		
Incubation		Time (sec)	360
Measurement	End point		
Wavelength (nm)	540 nm	Side wavel. (nm)	None
Meas. type	Fixed timing		



Laboratories, Inc.

Environmental Testing Laboratory Since 1949

AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

BC Laboratories
4100 Atlas Court
Bakersfield, CA 93308
Phone: 661-327-4911

SDG: 17-02918

Class: WET

Method: SM-4500SD



Laboratories, Inc.

Environmental Testing Laboratory Since 1949

AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ANALYSES DATA PACKAGE COVER PAGE

SM-4500SD

Laboratory: BC Laboratories

SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN

Project: Alameda

Client Sample Id:

P4-1-MWIB2_170201

Lab Sample Id:

1702918-10

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature:

Name:

Sara Guron

Date:

03-06-2017

Title:

QA/QC Manager



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

METHOD DETECTION AND REPORTING LIMITS

SM-4500SD

Laboratory: BC Laboratories

SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN

Project: Alameda

Matrix: Water

Instrument: SPEC06

Analyte	DL	LOD	LOQ	Units
Total Sulfide	0.05	0.1	0.1	mg/L



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INORGANIC ANALYSIS DATA SHEET
SM-4500SD

P4-1-MWIB2_170201

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Matrix: Water Laboratory ID: 1702918-10 File ID:
Sampled: 02/01/17 09:10 Prepared: 02/06/17 10:30 Analyzed: 02/06/17 10:30
Solids: 0.00 Preparation: No Prep Initial/Final: 25 ml / 25 ml
Batch: B[B0496 Sequence: 1702027 Calibration: UNASSIGNED Instrument: SPEC06

CAS NO.	Analyte	Concentration (mg/L)	DL	LOD	LOQ	Dilution Factor	Q	Method
18496-25-8	Total Sulfide	0.10	0.050	0.10	0.10	1	U	SM-4500SD



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

PREPARATION BATCH SUMMARY**SM-4500SD**

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Batch: B[B0496 Batch Matrix: Water Preparation: No Prep

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
P4-1-MWIB2_170201	1702918-10		02/06/17 10:30	
Blank	B[B0496-BLK1		02/06/17 10:30	
LCS	B[B0496-BS1		02/06/17 10:30	
P4-1-MWIB2_170201	B[B0496-DUP1		02/06/17 10:30	
P4-1-MWIB2_170201	B[B0496-MS1		02/06/17 10:30	
P4-1-MWIB2_170201	B[B0496-MSD1		02/06/17 10:30	



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

METHOD BLANK DATA SHEET SM-4500SD

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Matrix: Water Laboratory ID: B[B0496-BLK1 File ID:
Prepared: 02/06/17 10:30 Preparation: No Prep Initial/Final: 25 ml / 25 ml
Analyzed: 02/06/17 10:30 Instrument: SPEC06
Batch: B[B0496 Sequence: 1702027 Calibration: UNASSIGNED

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
18496-25-8	Total Sulfide	0.10	0.050	0.10	0.10	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

DUPLICATES**SM-4500SD****P4-1-MWIB2 170201**Laboratory: BC LaboratoriesSDG: 17-02918Client: AMEC Environmental & Infrastructure \$AMCNProject: AlamedaMatrix: WaterLaboratory ID: B[B0496-DUP1Batch: B[B0496Lab Source ID: 1702918-10Preparation: No PrepInitial/Final: 25 ml / 25 mlSource Sample Name: P4-1-MWIB2_170201

% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (mg/L)	C	DUPLICATE CONCENTRATION (mg/L)	C	RPD %	Q	METHOD
Total Sulfide	10	ND		ND				SM-4500SD

* Values outside of QC limits



AMEC Environmental & Infrastructure
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Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY
SM-4500SD

P4-1-MWIB2 170201

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Matrix: Water

Batch: B[B0496 Laboratory ID: B[B0496-MS1

Preparation: No Prep Initial/Final: 25 ml / 25 ml

Source Sample Number: 1702918-10

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC. #	QC LIMITS REC.
Total Sulfide	0.50000	ND	0.38029	76.1 *	80 - 120

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC. #	% RPD #	RPD	QC LIMITS REC.
Total Sulfide	0.50000	0.38197	76.4 *	0.441	10	80 - 120

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits



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San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

LCS RECOVERY
SM-4500SD

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Matrix: Water
Batch: B[B0496 Laboratory ID: B[B0496-BS1
Preparation: No Prep Initial/Final: 25 ml / 25 ml

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC. #	QC LIMITS REC.
Total Sulfide	0.50000	0.52476	105	90 - 110

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ANALYSIS BATCH (SEQUENCE) SUMMARY SM-4500SD

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Sequence: 1702027 Instrument: SPEC06
Matrix: Water Calibration: UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check	1702027-ICV1		02/06/17 10:30
Initial Cal Blank	1702027-ICB1		02/06/17 10:30
LCS	B[B0496-BS1		02/06/17 10:30
Blank	B[B0496-BLK1		02/06/17 10:30
P4-1-MWIB2_170201	1702918-10		02/06/17 10:30
P4-1-MWIB2_170201	B[B0496-DUP1		02/06/17 10:30
P4-1-MWIB2_170201	B[B0496-MS1		02/06/17 10:30
P4-1-MWIB2_170201	B[B0496-MSD1		02/06/17 10:30
Calibration Check	1702027-CCV1		02/06/17 10:30
Calibration Blank	1702027-CCB1		02/06/17 10:30
Calibration Check	1702027-CCV2		02/06/17 10:30
Calibration Blank	1702027-CCB2		02/06/17 10:30
Calibration Check	1702027-CCV3		02/06/17 10:30
Calibration Blank	1702027-CCB3		02/06/17 10:30



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

BLANKS
SM-4500SDLaboratory: BC LaboratoriesSDG: 17-02918Client: AMEC Environmental & Infrastructure \$AMCNInstrument ID: SPEC06 Project: AlamedaSequence: 1702027 Calibration: UNASSIGNED

Lab Sample ID	Analyte	Found	DL	LOD	LOQ	Units	C	Method
1702027-CCB1	Total Sulfide	0.0000	0.050		0.10	mg/L	U	SM-4500SD
1702027-CCB2	Total Sulfide	0.0000	0.050		0.10	mg/L	U	SM-4500SD
1702027-CCB3	Total Sulfide	0.0000	0.050		0.10	mg/L	U	SM-4500SD
1702027-ICB1	Total Sulfide	0.0000	0.050		0.10	mg/L	U	SM-4500SD



AMEC Environmental & Infrastructure
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San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INITIAL AND CONTINUING CALIBRATION CHECK**SM-4500SD**Laboratory: BC LaboratoriesSDG: 17-02918Client: AMEC Environmental & Infrastructure \$AMCNProject: AlamedaInstrument ID: SPEC06Calibration: UNASSIGNEDControl Limt: +/- %Sequence: 1702027

Lab Sample ID	Analyte	True	Found	%R	Units	Method
1702027-CCV1	Total Sulfide	0.50000	0.52476	105	mg/L	SM-4500SD
1702027-CCV2	Total Sulfide	0.50000	0.52476	105	mg/L	SM-4500SD
1702027-CCV3	Total Sulfide	0.50000	0.52476	105	mg/L	SM-4500SD
1702027-ICV1	Total Sulfide	0.50000	0.51636	103	mg/L	SM-4500SD

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

HOLDING TIME SUMMARY SM-4500SD

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
P4-1-MWIB2_170201	02/01/17 09:10	02/01/17 22:30	02/06/17 10:30	5.00	7.00	02/06/17 10:30	5.00	7.00	

* Holding time not met

Note: If Prep or Analysis are performed within the hour (if holding time is based on hours) or within the day (if holding time is based on days), then the sample is not flagged as outside holding times. Calculated number of days are based on date received or date prepared depending on the test.



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:27:47PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

Notes and Definitions

B	Blank contamination. The analyte is greater than 1/2 the PQL/LOQ/CRQL in the associated method blank.
D	The reported value is from a dilution.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration.
J	The reported value is an estimated value. Results are between the MDL and PQL/LOQ/CRQL.
U	The analyte was not detected and is reported as less than the LOD/MDL or as defined by the client.



BC

LABORATORIES, INC.

Work Order Number: 1702918

**Laboratory Documentation Requirements
For Data Validation of
GC Analysis**

**Prepared By
BC Laboratories**

For AMEC Environmental & Infrastructure

5023146096

All pages have been paginated and results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



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Case Narrative

Analyses Requested: RSK 175M

Submission Number: 17-02918

Instrument ID: GC-V1

Model: Varian 3400

Column Type: RTX 502.2, 60m x 0.25mm ID, 1.4 μ m film thickness.

Samples were received refrigerated to <6°C upon arrival at BC Laboratories, Inc.

Samples were checked for preservation. Where applicable, sample preservation was adjusted in the laboratory.

Holding Time: All analyses and extractions took place within holding times.

Calibration: Initial calibration criteria were met. Frequency and accuracy criteria for initial calibration verification (ICV) and continuing calibration verification (CCV) were met.

Blanks: Method blank was prepared and analyzed at the required frequency. No detection of analytes of interest took place at or above the PQL. Initial and continuing calibration blanks were analyzed at the required frequencies and on an as needed basis.

Laboratory Control Sample and Duplicate: Laboratory control sample analysis was performed at the required frequency. All parameters were within QC limits.



BC Laboratories, Inc.

Environmental Testing Laboratory Since 1949

Chain of Custody and Cooler Receipt Form for 1702918 Page 1 of 5

SHIP TO:		BILL TO:		DISPOSAL INSTRUCTIONS:																																																																																																																																																					
BC Laboratories 4100 Adams Court Bakersfield, CA 93308		Mariah Mitchell (520) 830-3400 (661) 494-0200		Armed Forces Wheeler 8210 Sky Park Court, Suite 200 San Diego, CA 92123																																																																																																																																																					
Project Name: Project Number: Project Manager:		Project Contact: Phone Number: Project Phase:		Shipment Method: Waybill Number:																																																																																																																																																					
Alameda Basewide 5023146068 Kevin O'Brien		Mariah Mitchell (520) 830-3400 (661) 494-0200		LAB FEDEX NAVA																																																																																																																																																					
CHAIN OF CUSTODY <table border="1"> <thead> <tr> <th colspan="2">Sample Information</th> <th colspan="4">Method for Analysis</th> </tr> <tr> <th>No.</th> <th>Sample ID</th> <th>Date & Time Sampled</th> <th>Matrix</th> <th>Sample Type</th> <th>MSMSD</th> </tr> </thead> <tbody> <tr><td>1</td><td>D03-03_170201</td><td>02/01/17 11:30</td><td>WG</td><td>N</td><td>X</td></tr> <tr><td>2</td><td>DUP15_170201</td><td>02/01/17 10:00</td><td>WG</td><td>FD</td><td>Z</td></tr> <tr><td>3</td><td>DUP16_170201</td><td>02/01/17 11:05</td><td>WG</td><td>FD</td><td>Z</td></tr> <tr><td>4</td><td>M03-06_170201</td><td>02/01/17 08:30</td><td>WG</td><td>N</td><td>X</td></tr> <tr><td>5</td><td>M03-10_170201</td><td>02/01/17 10:55</td><td>WG</td><td>N</td><td>Z</td></tr> <tr><td>6</td><td>M03-18_170201</td><td>02/01/17 09:00</td><td>WG</td><td>N</td><td>Z</td></tr> <tr><td>7</td><td>M03-19_170201</td><td>02/01/17 09:55</td><td>WG</td><td>N</td><td>Z</td></tr> <tr><td>8</td><td>MW360-1_170201</td><td>02/01/17 11:00</td><td>WG</td><td>N</td><td>Z</td></tr> <tr><td>9</td><td>MW360-4_170201</td><td>02/01/17 12:30</td><td>WG</td><td>N</td><td>X</td></tr> <tr><td>10</td><td>P4-1-MWTB2_170201</td><td>02/01/17 09:10</td><td>WG</td><td>N</td><td>Y</td></tr> <tr><td>11</td><td>P-4-1-MWS6_170201</td><td>02/01/17 10:00</td><td>WG</td><td>N</td><td>X</td></tr> <tr><td>12</td><td>54-TT-MW01_170201</td><td>02/01/17 10:30</td><td>WG</td><td>N</td><td>Z</td></tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="2">Reworked By/Affiliation:</th> <th colspan="2">Date: 2/1/17 Time: 14:55</th> <th colspan="2">Does COC match samples: Y or N</th> <th colspan="2">Comments: X=Analyze H=Hold Analysis Request</th> </tr> </thead> <tbody> <tr> <td colspan="2">WLR</td> <td colspan="2">Date: 2/1/17 Time: 14:55</td> <td colspan="2">Broken Container: Y or N</td> <td colspan="2">Report DL/LOD/LOQ with Navy NIRIS valid values</td> </tr> <tr> <td colspan="2">Received By: </td> <td colspan="2">Date: 2/1/17 Time: 14:55</td> <td colspan="2">COC seal intact: Y or N</td> <td colspan="2"></td> </tr> <tr> <td colspan="2">Reworked By/Affiliation: </td> <td colspan="2">Date: 2/1/17 Time: 14:55</td> <td colspan="2">Other problems: Y or N</td> <td colspan="2"></td> </tr> <tr> <td colspan="2">Received By: </td> <td colspan="2">Date: 2/1/17 Time: 14:55</td> <td colspan="2">WSDOT contacted: Y or N</td> <td colspan="2"></td> </tr> <tr> <td colspan="2">Reworked By/Affiliation: </td> <td colspan="2">Date: 2/1/17 Time: 14:55</td> <td colspan="2">Cooler Temperature at receipt: _____ °C</td> <td colspan="2">VOC short list is Benzene & Ethylbenzene only</td> </tr> <tr> <td colspan="2">Received By (Lab): </td> <td colspan="2">Date: 2/1/17 Time: 14:55</td> <td colspan="2">Major Cations are Na, K, Ca, Mg</td> <td colspan="2">Major Cations are Na, K, Ca, Mg</td> </tr> <tr> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2"></td> <td colspan="2">NUMBER OF COOLERS SENT: 2230</td> </tr> </tbody> </table>						Sample Information		Method for Analysis				No.	Sample ID	Date & Time Sampled	Matrix	Sample Type	MSMSD	1	D03-03_170201	02/01/17 11:30	WG	N	X	2	DUP15_170201	02/01/17 10:00	WG	FD	Z	3	DUP16_170201	02/01/17 11:05	WG	FD	Z	4	M03-06_170201	02/01/17 08:30	WG	N	X	5	M03-10_170201	02/01/17 10:55	WG	N	Z	6	M03-18_170201	02/01/17 09:00	WG	N	Z	7	M03-19_170201	02/01/17 09:55	WG	N	Z	8	MW360-1_170201	02/01/17 11:00	WG	N	Z	9	MW360-4_170201	02/01/17 12:30	WG	N	X	10	P4-1-MWTB2_170201	02/01/17 09:10	WG	N	Y	11	P-4-1-MWS6_170201	02/01/17 10:00	WG	N	X	12	54-TT-MW01_170201	02/01/17 10:30	WG	N	Z	Reworked By/Affiliation:		Date: 2/1/17 Time: 14:55		Does COC match samples: Y or N		Comments: X=Analyze H=Hold Analysis Request		WLR		Date: 2/1/17 Time: 14:55		Broken Container: Y or N		Report DL/LOD/LOQ with Navy NIRIS valid values		Received By:		Date: 2/1/17 Time: 14:55		COC seal intact: Y or N				Reworked By/Affiliation:		Date: 2/1/17 Time: 14:55		Other problems: Y or N				Received By:		Date: 2/1/17 Time: 14:55		WSDOT contacted: Y or N				Reworked By/Affiliation:		Date: 2/1/17 Time: 14:55		Cooler Temperature at receipt: _____ °C		VOC short list is Benzene & Ethylbenzene only		Received By (Lab):		Date: 2/1/17 Time: 14:55		Major Cations are Na, K, Ca, Mg		Major Cations are Na, K, Ca, Mg								NUMBER OF COOLERS SENT: 2230	
Sample Information		Method for Analysis																																																																																																																																																							
No.	Sample ID	Date & Time Sampled	Matrix	Sample Type	MSMSD																																																																																																																																																				
1	D03-03_170201	02/01/17 11:30	WG	N	X																																																																																																																																																				
2	DUP15_170201	02/01/17 10:00	WG	FD	Z																																																																																																																																																				
3	DUP16_170201	02/01/17 11:05	WG	FD	Z																																																																																																																																																				
4	M03-06_170201	02/01/17 08:30	WG	N	X																																																																																																																																																				
5	M03-10_170201	02/01/17 10:55	WG	N	Z																																																																																																																																																				
6	M03-18_170201	02/01/17 09:00	WG	N	Z																																																																																																																																																				
7	M03-19_170201	02/01/17 09:55	WG	N	Z																																																																																																																																																				
8	MW360-1_170201	02/01/17 11:00	WG	N	Z																																																																																																																																																				
9	MW360-4_170201	02/01/17 12:30	WG	N	X																																																																																																																																																				
10	P4-1-MWTB2_170201	02/01/17 09:10	WG	N	Y																																																																																																																																																				
11	P-4-1-MWS6_170201	02/01/17 10:00	WG	N	X																																																																																																																																																				
12	54-TT-MW01_170201	02/01/17 10:30	WG	N	Z																																																																																																																																																				
Reworked By/Affiliation:		Date: 2/1/17 Time: 14:55		Does COC match samples: Y or N		Comments: X=Analyze H=Hold Analysis Request																																																																																																																																																			
WLR		Date: 2/1/17 Time: 14:55		Broken Container: Y or N		Report DL/LOD/LOQ with Navy NIRIS valid values																																																																																																																																																			
Received By:		Date: 2/1/17 Time: 14:55		COC seal intact: Y or N																																																																																																																																																					
Reworked By/Affiliation:		Date: 2/1/17 Time: 14:55		Other problems: Y or N																																																																																																																																																					
Received By:		Date: 2/1/17 Time: 14:55		WSDOT contacted: Y or N																																																																																																																																																					
Reworked By/Affiliation:		Date: 2/1/17 Time: 14:55		Cooler Temperature at receipt: _____ °C		VOC short list is Benzene & Ethylbenzene only																																																																																																																																																			
Received By (Lab):		Date: 2/1/17 Time: 14:55		Major Cations are Na, K, Ca, Mg		Major Cations are Na, K, Ca, Mg																																																																																																																																																			
						NUMBER OF COOLERS SENT: 2230																																																																																																																																																			

BC

Laboratories, Inc.

Environmental Testing Laboratory Since 1949

Chain of Custody and Cooler Receipt Form for 1702918 Page 2 of 5

Project Name:		Project Contact:	Lab Phone#	Ship To:	Attn:	Disposal Instructions:	Shipment Method:	
Alameda Basewide	5023140096	Marina Mitchell	(803) 630-3400	9210 Sky Park Court, Suite 200	Attn: Foster Wheeler	LAB FEDEX	FEDEX	
Project Number:	Karen Ohnes	Phone Number:	Project Phone#					
Project Manager:								
Sample Information		Methods for Analysis						
No.	Sample ID	Date & Time Sampled	Matrix	Sample Type	MS-MSD			
1	372-MW1_170201-13	02/01/17 13:00	WG	N				
2	EB15_170201 - 14	02/01/17 14:30	WQ	E _B				
3	EB16_170201 - 15	02/01/17 14:45	WQ	E _B				
4	M03-05_170201 - 16	02/01/17 13:35	WG	N				
5	M03-17_170201 - 17	02/01/17 12:40	WG	N				
6	MW-02_170201 - 18	02/01/17 14:05	WG	N				
7								
8								
9								
10								
11								
12								
Sampler's Signature:		Time: 14:55	Date: 2/1/17	For Lab Use				
Relinquished By/Affiliation:		Time: 14:55	Date: 2/1/17	Does COC match samples:	Comments: X=Analyze H=Hold Analysis Request			
Received By:		Time: 14:55	Date: 2/1/17	Broken Container:	Y or N Y or N			
Relinquished By/Affiliation:		Time: 14:55	Date: 2/1/17	COC seal intact:	Y or N Y or N			
Received By:		Time: 14:55	Date: 2/1/17	Other problems:	Y or N Y or N			
Relinquished By/Affiliation:		Time: 14:55	Date: 2/1/17	WSDOT contacted:	Y or N Y or N			
Received By (LAB):		Time: 18:30	Date: 2/1/17	Date contacted:				
		Time: 2230	Date: 2/1/17	Cooler Temperature at receipt: °C	NUMBER OF COOLERS SENT:			
		Time: 2230	Date: 2/1/17	Time: 2230				

BC

Laboratories, Inc.

Environmental Testing Laboratory Since 1949

Chain of Custody and Cooler Receipt Form for 1702918 Page 3 of 5

BC LABORATORIES INC.		COOLER RECEIPT FORM				Page <u>1</u> Of <u>3</u>				
Submission #: <u>17-02918</u>										
SHIPPING INFORMATION FedEx <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____				SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S				
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: Custody Seals Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input type="checkbox"/> Comments: Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>										
All samples received? Yes <input type="checkbox"/> No <input type="checkbox"/> COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		All samples containers intact? Yes <input type="checkbox"/> No <input type="checkbox"/> Emissivity: <u>0.97</u> Container: <u>VOA</u> Thermometer ID: <u>207</u> Temperature: (A) <u>3.0</u> °C / (C) <u>3.2</u> °C Description(s) match COC? Yes <input type="checkbox"/> No <input type="checkbox"/> Date/Time <u>2/1/2017 10:41</u> Analyst Init <u>GSP</u>								
SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr ⁶⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	<u>096</u>	<u>A8c</u>	<u>A8c</u>	<u>A8c</u>	<u>A8c</u>	<u>A8c</u>	<u>A8c</u>	<u>A8c</u>	<u>A8c</u>	
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL										
QT EPA 50E&0R/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
3oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:

Sample Numbering Completed By:

A = Actual / C = Corrected

JDC

Date/Time:

2-2-17 10:41

Rev 21 05/23/2016

(SAWPDexWordPerfectLAR_2005\FORMS\SAMRECver 28)

BC

Laboratories, Inc.

Environmental Testing Laboratory Since 1949

Chain of Custody and Cooler Receipt Form for 1702918 Page 4 of 5

BC LABORATORIES INC.		COOLER RECEIPT FORM						Page <u>2</u> Of <u>3</u>		
Submission #: <u>17-02918</u>										
SHIPPING INFORMATION				SHIPPING CONTAINER			FREE LIQUID			
Fed Ex <input type="checkbox"/>	UPS <input type="checkbox"/>	Ontrac <input type="checkbox"/>	Hand Delivery <input type="checkbox"/>	Ice Chest <input checked="" type="checkbox"/>	None <input type="checkbox"/>	Box <input type="checkbox"/>	YES <input type="checkbox"/>	NO <input type="checkbox"/>		
BC Lab Field Service <input checked="" type="checkbox"/>				Other <input type="checkbox"/> (Specify) _____			Other <input type="checkbox"/> (Specify) _____			
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/>				Comments: _____						
Custody Seals		Ice Chest <input type="checkbox"/>	Containers <input type="checkbox"/>	None <input type="checkbox"/> Comments: _____						
Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>		Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>		All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.97</u>		Container: <u>VOA</u>		Thermometer ID: <u>207</u>		Date/Time: <u>2/2/2017 2240</u>		
Temperature: (A) <u>3.0</u> °C / (C) <u>3.2</u> °C								Analyst Init <u>GSP</u>		
SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr-6										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	<u>ABC</u>	<u>ABC</u>	<u>ABC</u>	<u>ABC</u>	<u>ABC</u>	<u>ABC</u>	<u>ABC</u>	<u>ABC</u>	<u>ABC</u>	
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA S25										
QT EPA S25 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA S270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
PERVIOUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: _____

Sample Numbering Completed By: JNL

A = Actual / C = Corrected

Date/Time: 2-2-171041

Rev 21 05/23/2016

(S:\WP\Doc\MS\Perfect\LAB\DOCS\DRW\SI\AAREC\Rev 20)

BC

Laboratories, Inc.

Environmental Testing Laboratory Since 1949

Chain of Custody and Cooler Receipt Form for 1702918 Page 5 of 5

BC LABORATORIES INC.		COOLER RECEIPT FORM						Page <u>3 Of 3</u>		
Submission # <u>17-02918</u>										
SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____				SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____			FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S			
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____										
Custody Seals Ice Chest <input type="checkbox"/> Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>		Containers <input type="checkbox"/> Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>		None <input type="checkbox"/> Comments: _____ <i>X</i>						
All samples received? Yes <input type="checkbox"/> No <input type="checkbox"/>		All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>						
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.98</u> Container: <u>Amber</u> Thermometer ID: <u>207</u>		Date/Time <u>2/1 2240</u> Temperature: (A) <u>1.1</u> °C / (C) <u>1.2</u> °C Analyst Init <u>6SP</u>						
SAMPLE CONTAINERS		SAMPLE NUMBERS								
		1	2	3	4	5	6	7	8	9
QT PE UNPRES		<u>610</u>								
4oz / 8oz / 16oz PE UNPRES		<u>590</u>								
2oz Cr ⁶⁺										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE		<u>Ww, X</u>								
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PT PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 53L1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
3oz / 16oz / 32oz AMBER										
3oz / 16oz / 32oz JAR										
SOIL SLEEVE										
CB VIAL										
PLASTIC BAG										
EDLAR BAG										
TERROUS IRON										
INCORE										
MART KIT										
UMMA CANISTER										
Comments: _____										
Sample Numbering Completed By:		<u>JPL</u>		Date/Time:		<u>2-2-17</u>		<u>1041</u>		Rev 21 05/23/2016
= Actual / C = Corrected										(SWPPDWordPerfectLAB_DOCS\00MS\AMREC\ver 20)



Laboratories, Inc.

Environmental Testing Laboratory Since 1949

AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:54:22PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

BC Laboratories
4100 Atlas Court
Bakersfield, CA 93308
Phone: 661-327-4911

SDG: 17-02918

Class: GC

Method: RSK-175M



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:54:22PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ANALYSES DATA PACKAGE COVER PAGE**RSK-175M**

Laboratory: BC Laboratories

SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN

Project: Alameda

Client Sample Id:P4-1-MWIB2_170201**Lab Sample Id:**1702918-10

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature:

Sara Guron

Name:

Sara Guron

Date:

03-06-2017

Title:

QA/QC Manager



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:54:22PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

METHOD DETECTION AND REPORTING LIMITS**RSK-175M****Laboratory:** BC Laboratories**SDG:** 17-02918**Client:** AMEC Environmental & Infrastructure \$AMCN**Project:** Alameda**Matrix:** Water**Instrument:** GC-V1

Analyte	DL	LOD	LOQ	Units
Methane	0.00028	0.0006	0.001	mg/L
Ethane	0.00075	0.001	0.002	mg/L
Ethene	0.00077	0.001	0.002	mg/L



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:54:22PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ORGANIC ANALYSIS DATA SHEET RSK-175M

P4-1-MWIB2_170201

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Matrix: Water Laboratory ID: 1702918-10 File ID: 10FEB10.D
Sampled: 02/01/17 09:10 Prepared: 02/08/17 12:21 Analyzed: 02/10/17 07:34
Solids: Preparation: RSK-175M Initial/Final: 1 ml / 1 ml
Batch: B[B0699 Sequence: 1702341 Calibration: 1702007 Instrument: GC-V1

CAS NO.	COMPOUND	DILUTION	CONC. (mg/L)	DL	LOD	LOQ	Q
74-82-8	Methane	1	0.0090	0.00028	0.00060	0.0010	
74-84-0	Ethane	1	0.0010	0.00075	0.0010	0.0020	U
74-85-1	Ethene	1	0.044	0.00077	0.0010	0.0020	

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:54:22PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

PREPARATION BATCH SUMMARY**RSK-175M**

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Batch: B[B0699 Batch Matrix: Water Preparation: RSK-175M

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
P4-1-MWIB2_170201	1702918-10	10FEB10.D	02/08/17 12:21	
Blank	B[B0699-BLK1	10FEB04.D	02/08/17 12:21	
LCS	B[B0699-BS1	10FEB05.D	02/08/17 12:21	
LCS Dup	B[B0699-BSD1	10FEB06.D	02/08/17 12:21	



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:54:22PM

Project: Alameda

Project Number: 5023146096

Project Manager: Kelli Miller

**METHOD BLANK DATA SHEET
RSK-175M**

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Matrix: Water Laboratory ID: B[B0699-BLK1 File ID: 10FEB04.D
Prepared: 02/08/17 12:21 Preparation: RSK-175M Initial/Final: 1 ml / 1 ml
Analyzed: 02/10/17 06:21 Instrument: GC-V1
Batch: B[B0699 Sequence: 1702341 Calibration: 1702007

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
74-82-8	Methane	0.00060	0.00028	0.00060	0.0010	U
74-84-0	Ethane	0.0010	0.00075	0.0010	0.0020	U
74-85-1	Ethene	0.0010	0.00077	0.0010	0.0020	U



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:54:22PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

LCS RECOVERY

RSK-175M

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Matrix:	<u>Water</u>		
Batch:	<u>B[B0699]</u>	Laboratory ID:	<u>B[B0699-BS1]</u>
Preparation:	<u>RSK-175M</u>	Initial/Final:	<u>1 ml / 1 ml</u>

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC. #	QC LIMITS REC.
Methane	0.010843	0.011395	105	73 - 125
Ethane	0.021736	0.024050	111	74 - 131
Ethene	0.028446	0.029770	105	72 - 133

COMPOUND	SPIKE ADDED (mg/L)	LCSD CONCENTRATION (mg/L)	LCSD % REC. #	% RPD #	RPD	QC LIMITS REC.
Methane	0.010843	0.010192	94.0	11.1	20	73 - 125
Ethane	0.021736	0.023723	109	1.37	20	74 - 131
Ethene	0.028446	0.029232	103	1.82	20	72 - 133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:54:22PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ANALYSIS BATCH (SEQUENCE) SUMMARY RSK-175M

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Sequence: 1701454 Instrument: GC-V1
Matrix: Water Calibration: 1702007

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	1701454-CAL4	27JAN02.D	01/27/17 07:43
Cal Standard	1701454-CAL3	27JAN03.D	01/27/17 07:47
Cal Standard	1701454-CAL2	27JAN04.D	01/27/17 07:52
Cal Standard	1701454-CAL1	27JAN05.D	01/27/17 07:56
Initial Cal Check	1701454-ICV1	27JAN06.D	01/27/17 08:40
Initial Cal Blank	1701454-ICB1	27JAN07.D	01/27/17 08:45



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:54:22PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

ANALYSIS BATCH (SEQUENCE) SUMMARY RSK-175M

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Sequence: 1702341 Instrument: GC-V1
Matrix: Water Calibration: 1702007

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Initial Cal Check	1702341-ICV1	27JAN06.D	01/27/17 08:40
Initial Cal Blank	1702341-ICB1	27JAN07.D	01/27/17 08:45
Calibration Check	1702341-CCV1	10FEB02.D	02/10/17 06:13
Calibration Blank	1702341-CCB1	10FEB03.D	02/10/17 06:17
Blank	B[B0699-BLK1	10FEB04.D	02/10/17 06:21
LCS	B[B0699-BS1	10FEB05.D	02/10/17 06:25
LCS Dup	B[B0699-BSD1	10FEB06.D	02/10/17 06:29
Calibration Check	1702341-CCV2	10FEB07.D	02/10/17 06:36
Calibration Blank	1702341-CCB2	10FEB08.D	02/10/17 07:08
P4-1-MWIB2_170201	1702918-10	10FEB10.D	02/10/17 07:34
Calibration Check	1702341-CCV3	10FEB19.D	02/10/17 08:46
Calibration Blank	1702341-CCB3	10FEB20.D	02/10/17 08:51



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:54:22PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

CONTINUING CALIBRATION CHECK**RSK-175M**

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>GC-V1</u>	Calibration:	<u>1702007</u>
Lab File ID:	<u>27JAN06.D</u>	Calibration Date:	<u>01/27/17 07:43</u>
Sequence:	<u>1701454</u>	Injection Date:	<u>01/27/17</u>
Lab Sample ID:	<u>1701454-ICV1</u>	Injection Time:	<u>08:40</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Methane	A	10.843	12.174	605292.5	679565.1		12.3	15
Ethane	A	21.736	24.956	580938.9	666976.9		14.8	15
Ethene	A	28.446	31.820	402477.4	450214.1		11.9	15

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

(1): Cal Type (Calibration Type): A = Average; L = Linear Regression; Q = Quadratic Regression

(2): % Diff (of Response Factors) reported when Cal Type = A; %Drift (of Conc) reported when Cal Type = L or Q



AMEC Environmental & Infrastructure
9210 Sky Park Court #200
San Diego, CA 92123

Reported: 3/6/2017 4:54:22PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

CONTINUING CALIBRATION CHECK RSK-175M

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>GC-V1</u>	Calibration:	<u>1702007</u>
Lab File ID:	<u>27JAN06.D</u>	Calibration Date:	<u>01/27/17 07:43</u>
Sequence:	<u>1702341</u>	Injection Date:	<u>01/27/17</u>
Lab Sample ID:	<u>1702341-ICV1</u>	Injection Time:	<u>08:40</u>

COMPOUND	(1) _{CAL} TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Methane	A	10.843	12.174	605292.5	679565.1		12.3	15
Ethane	A	21.736	24.956	580938.9	666976.9		14.8	15
Ethene	A	28.446	31.820	402477.4	450214.1		11.9	15

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

(1): Cal Type (Calibration Type): A = Average; L = Linear Regression; Q = Quadratic Regression

(2): % Diff (of Response Factors) reported when Cal Type = A; %Drift (of Conc) reported when Cal Type = L or Q



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Project Number: 5023146096
Project Manager: Kelli Miller

CONTINUING CALIBRATION CHECK

RSK-175M

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>GC-V1</u>	Calibration:	<u>1702007</u>
Lab File ID:	<u>10FEB02.D</u>	Calibration Date:	<u>01/27/17 07:43</u>
Sequence:	<u>1702341</u>	Injection Date:	<u>02/10/17</u>
Lab Sample ID:	<u>1702341-CCV1</u>	Injection Time:	<u>06:13</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Methane	A	10.843	11.615	605292.5	648366.7		7.1	15
Ethane	A	21.736	24.231	580938.9	647598		11.5	15
Ethene	A	28.446	30.300	402477.4	428710.9		6.5	15

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

(1): Cal Type (Calibration Type): A = Average; L = Linear Regression; Q = Quadratic Regression

(2): % Diff (of Response Factors) reported when Cal Type = A; %Drift (of Conc) reported when Cal Type = L or Q



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CONTINUING CALIBRATION CHECK

RSK-175M

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>GC-V1</u>	Calibration:	<u>1702007</u>
Lab File ID:	<u>10FEB07.D</u>	Calibration Date:	<u>01/27/17 07:43</u>
Sequence:	<u>1702341</u>	Injection Date:	<u>02/10/17</u>
Lab Sample ID:	<u>1702341-CCV2</u>	Injection Time:	<u>06:36</u>

COMPOUND	(1) CAL	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV
Methane	A	10.843	11.118	605292.5	620620.6		2.5	15
Ethane	A	21.736	23.591	580938.9	630488.1		8.5	15
Ethene	A	28.446	29.346	402477.4	415217.6		3.2	15

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

(1): Cal Type (Calibration Type): A = Average; L = Linear Regression; Q = Quadratic Regression

(2): % Diff (of Response Factors) reported when Cal Type = A; %Drift (of Conc) reported when Cal Type = L or Q



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CONTINUING CALIBRATION CHECK

RSK-175M

Laboratory:	<u>BC Laboratories</u>	SDG:	<u>17-02918</u>
Client:	<u>AMEC Environmental & Infrastructure \$AMCN</u>	Project:	<u>Alameda</u>
Instrument ID:	<u>GC-V1</u>	Calibration:	<u>1702007</u>
Lab File ID:	<u>10FEB19.D</u>	Calibration Date:	<u>01/27/17 07:43</u>
Sequence:	<u>1702341</u>	Injection Date:	<u>02/10/17</u>
Lab Sample ID:	<u>1702341-CCV3</u>	Injection Time:	<u>08:46</u>

COMPOUND	(1) CAL TYPE	CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT (2)	
		STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Methane	A	10.843	11.754	605292.5	656127.5		8.4	15
Ethane	A	21.736	24.484	580938.9	654358.7		12.6	15
Ethene	A	28.446	31.235	402477.4	441940.5		9.8	15

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

(1): Cal Type (Calibration Type): A = Average; L = Linear Regression; Q = Quadratic Regression

(2): % Diff (of Response Factors) reported when Cal Type = A; %Drift (of Conc) reported when Cal Type = L or Q



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INITIAL CALIBRATION STANDARDS

RSK-175M

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Sequence: 1701454 Instrument: GC-V1
Calibration: 1702007

Standard ID	Description	Lab Sample ID	Lab File ID	Analysis Date/Time
7B07024	RSK-175M CAL4	1701454-CAL4	27JAN02.D	01/27/17 07:43
7B07023	RSK-175M CAL3	1701454-CAL3	27JAN03.D	01/27/17 07:47
7B07022	RSK-175M CAL2	1701454-CAL2	27JAN04.D	01/27/17 07:52
7B07021	RSK-175M CAL1	1701454-CAL1	27JAN05.D	01/27/17 07:56



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Reported: 3/6/2017 4:54:22PM
Project: Alameda
Project Number: 5023146096
Project Manager: Kelli Miller

INITIAL CALIBRATION DATA RSK-175M

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Calibration: 1702007 Instrument: GC-V1
Matrix: Water Calibration Date: 01/27/17 07:43

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Methane	1.0843	637975.6	10.843	692653.9	108.43	493653.4	542.15	596887				
Ethane	2.1736	586625.4	21.736	661756.1	217.36	501173.7	1086.8	574200.6				
Ethene	2.8446	439934.3	28.446	440075.9	284.46	333630.7	1422.3	396268.7				



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INITIAL CALIBRATION DATA (Continued)**RSK-175M**

Laboratory: BC Laboratories SDG: 17-02918
Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda
Calibration: 1702007 Instrument: GC-V1
Matrix: Water Calibration Date: 01/27/17 07:43

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Methane	605292.5	13.89925	0.73	1.372967E-02			20	
Ethane	580938.9	11.31896	2.0825	0.4599198			20	
Ethene	402477.4	12.50156	1.7325	0.5526404			20	



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HOLDING TIME SUMMARY RSK-175M

Laboratory: BC Laboratories SDG: 17-02918

Client: AMEC Environmental & Infrastructure \$AMCN Project: Alameda

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
P4-1-MWIB2_170201	02/01/17 09:10	02/01/17 22:30	02/08/17 12:21	9.00	14.00	02/10/17 07:34	9.00	14.00	

* Holding time not met

Note: If Prep or Analysis are performed within the hour (if holding time is based on hours) or within the day (if holding time is based on days), then the sample is not flagged as outside holding times. Calculated number of days are based on date received or date prepared depending on the test.



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Notes and Definitions

B	Blank contamination. The analyte is greater than 1/2 the PQL/LOQ/CRQL in the associated method blank.
D	The reported value is from a dilution.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration.
J	The reported value is an estimated value. Results are between the MDL and PQL/LOQ/CRQL.
U	The analyte was not detected and is reported as less than the LOD/MDL or as defined by the client.